



**PANCHAYATI RAJ & D.W DEPARTMENT
GOVERNMENT OF ODISHA**

DETAIL TENDER CALL NOTICE

BID ID NO-12/2026-27

**PART-I: GENERAL AND TECHNICAL BID
RURAL WATER SUPPLY & SANITATION
NUAPADA DIVISION**

(THIS DTCN CONTAINS 155 PAGES)

ADDITIONAL PERFORMANCE SECURITY

GOVERNMENT OF ODISHA

WORKS DEPARTMENT

OFFICE MEMORANDUM

No. 07764600022025 173 /W., Bhubaneswar Dt. 03/01/20

Sub:- Amendment of Codal & Contractual Provisions.

After careful observation, Government has been pleased to abolish the extant provisions of threshold negative bid caps (14.99%) introduced in Appendix-IX, Clause 36 of OPWD Code Volume-II in the procurement of works undertaken by the Govt of Odisha and its agencies to ensure the procurement process results in a viable and successful manner with adoption of following incremental **Additional Performance Security(APS)** system:

1. Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:

- I. where the bid price is below 0% but not below 10% of the project cost put to bid, no additional performance guarantee/security percentage is required.
- II. where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance guarantee/security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price;
- III. where the bid price is 20% or more below of the project cost put to bid, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid price and this additional performance guarantee percentage shall be applied on the bid price;
- IV. The additional performance guarantee percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below

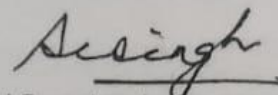
VI. Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/ Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

2. These amendments shall take effect from the date of issue of the O.M.

3. Accordingly, the relevant existing codal/contractual provision stands modified with effect from the date of issue of this O.M.

4. This has been concurred in by the Finance Department vide **File No. FIN-WF1-MISC-0102-2025**

By order of the Governor

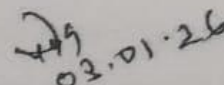


Principal Secretary to Government

Memo No. 174 /W, dated 03/01/26

Copy along with soft copy forwarded to Gazette Cell, Commerce and Transport (Commerce) Department, Bhubaneswar, for information and necessary action.

They are requested to publish the Office Memorandum in the extraordinary issue of the Gazette and supply 20 (twenty) copies to this Department.



EIC-cum-Special Secretary to Government

Memo No. 175 /W., Dt. 03/01/26

Copy forwarded to the P.S. to the Hon'ble Chief Minister, Odisha for the kind information of the Hon'ble Chief Minister.

Memo No. 176 /W., Dt. 03/01/26

Copy forwarded to the P.S. to the Hon'ble Minister, Law, Works, Excise, Odisha for the kind information of the Hon'ble Minister.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 177 /W., Dt. 03/01/26

Copy forwarded to the OSD to the Chief Secretary, Odisha, for the kind information of the Chief Secretary, Odisha.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 178 /W., Dt. 03/01/26

Copy forwarded to Sr. P.S. to the DC-cum-ACS, Odisha, for the kind information of the DC-cum-ACS, Odisha.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 179 /W., Dt. 03/01/26

Copy forwarded to Principal Accountant General (A&E), Odisha, Bhubaneswar/ Principal Accountant General (E & SR Audit), Odisha, Puri Branch, Puri for kind information and necessary action.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 180 /W., Dt. 03/01/26

Copy forwarded to P.S. to the Principal Secretary to Govt., Finance Department/ H & UD Department for the kind information of the Principal Secretary, Finance Department/ H & UD Department respectively.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 181 /W., Dt. 03/01/26

Copy forwarded to P.S. to the Commissioner-cum-Secretary to Govt., RD Department/ PR&DW Department for the kind information of the Commissioner-cum-Secretary, RD Department/ PR&DW Department respectively.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 182 /W., Dt. 03/01/26

Copy forwarded to the Finance Department/ H & UD Department/ RD Department/ PR&DW Department/DoWR/ all other Departments for information and necessary action.

Jh
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 183 /W., Dt. 03/01/26

Copy forwarded to the FA-cum-Special Secretary to Government, Works Department for kind information and necessary action.

[Signature]
03.01.26

EIC-cum-Special Secretary to Government

Memo No. 184 /W., Dt. 03/01/26

Copy forwarded to all Collectors & DMs for information and necessary action.

[Signature]
03.01.26

EIC-cum-Special Secretary to Government

Memo No. 185 /W., Dt. 03/01/26

Copy forwarded to EIC(Civil-cum-Roads), Odisha /EIC, Water Resources, Odisha/ EIC, Rural Works, Odisha/ EIC (PH), H&UD Department/ EIC (RWSS) PR&DW Department/ EIC, DPQ, Odisha/ EIC, NHs, Odisha/ EIC-cum-Managing Director, OB & CC Ltd., Bhubaneswar, Odisha/ Chief Engineer, Roads-I & II, Odisha / Chief Engineer, Buildings-I & II, Odisha / Chief Engineer, NHs, Odisha/ Chief Engineer, Bridges, Odisha / Chief Engineer, P&IP, Odisha / Chief Engineer, RD &QP, Odisha /Chief Engineer, RW- I & II, Odisha / Chief Engineer, PH (Urban), Odisha / Chief Engineer, Electricity, Odisha / Managing Director, OCC Ltd., Bhubaneswar/ all State PSUs for kind information and necessary action.

[Signature]
03.01.26

EIC-cum-Special Secretary to Government

Memo No. 186 /W., Dt. 03/01/26

Copy forwarded to all CCEs/ SEs/ EEs of the Works Department for kind information and necessary action.

[Signature]
03.01.26

EIC-cum-Special Secretary to Government

Memo No. 187 /W., Dt. 03/01/26

Copy forwarded to Roads Section/ A/C-I Section /A/C-II Section/ Plan Section / Building Section / Budget Section / N.H. Section / FC & AA Section, Works Department for information and necessary action

[Signature]
03.01.26

EIC-cum-Special Secretary to Government

SECTION 1
INSTRUCTION TO BIDDERS (ITB)

**Procedure for Electronic receipt, accounting and reporting of
Cost of Tender**

Paper and Earnest Money Deposit on submission of bids

1. The State Government have formulated rules and procedures for Electronic receipt, accounting and reporting of the receipt- of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. www.tendersodisha.gov.in.
2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as SBI/ICICI Bank/HDFC Bank for all Government Departments, State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies .The process outline as well as accounting and reporting structure are indicated below :
 - a) It will be carried out through a single banking transaction by the bidder for multiple payments like
Cost of Tender Paper and Earnest Money Deposit on submission of bids.
 - b) Various payment modes like Internet banking/ NEFT/RTGS of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
 - c) Reporting and accounting of the e-receipts will be made from a single source.
 - d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.
3. Only those bidders who successfully remit their **Cost of Tender Paper Earnest Money Deposit on submission of bids would be eligible to** participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the

designated Banks shall not be held responsible for such pendency or failure.

4. Banking arrangement:

- a) Designated Banks (SBI/ICICI Bank/HDFC Bank) payment gateway are being integrated with e-Procurement portal of Government of Odisha (www.tendersodisha.gov.in)
- b) The Designated Banks participating in **Electronic receipt, accounting and reporting of Cost of Tender Paper Earnest Money Deposit on submission of bids** will nominate a Focal Point Branch called e-FPB, who is authorized to collect and collate all e-Receipts. Each such branch will act as the Receiving branch and Focal Point Branch notwithstanding the fact that the bidder might have debited his account in any of the bank's branches while making payment.

5. Procedures of bid submission using electronic payment of tender paper cost and Earnest Money

Deposit by bidder:

- a) **Log on to e-Procurement Portal:** The bidders have to log onto the Odisha e-Procurement portal (www.tendersodisha.gov.in) using his/her digital signature certificate and then search and then select the required active tender from the "Search Active Tender" option. Now, submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.
- b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum no.7885, dt.23.07.2013.
- c) **Electronic payment of tender paper cost:** Then the bidders have to select and submit the bank name as available in the payment options
 - i. A bidder shall make electronic payment using his/her internet banking enabled account with designated Banks or their aggregator banks.
 - ii. A bidder having account in other Banks can make payment using NEFT/RTGS facility of designated Banks.
- Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.
- d) **Bid submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transaction by bidder the system will activate the

'Freeze Bid Submission' button to conclude the bid submission process.

- e) **System generated acknowledgement receipt for successful bid submission:** System will generate an acknowledgement receipt for successful bid submission. The bidder should make a note of '**Bid ID**' generated in the acknowledgement receipt for tracking their bid status.

6. Settlement of Cost of Tender Paper;

- a) **Cost of Tender Paper :** In respect of Government receipts on account of **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise-head-wise challans separately for **Cost of Tender Paper** and instruct the designated Banks to remit the money to the State Government account under different heads. In respect of the cost of tender paper received through the e-procurement portal, the remittance to the Cyber Treasury account will be made to the Head of Account 0075-Misc, General Services-800-Other Receipts -0097-Misc. Receipts-02237-Cost of Tender Paper.
- b) For the time being, the State Procurement Cell (SPC) will use over the counter payment facility of the Odisha Treasury portal. Thereafter, remittance through NEFT & RTGS will be facilitated through the Odisha Treasury portal.
- c) Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc., **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise list of challans and instruct the designated Banks to remit the money through the Odisha Treasury portal. The cost of tender papers will be credited to the registered Bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc.
- d) Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions) the tender fee, to the bidder, in case the tender is cancelled before opening of Bid as per direction received from TIA through e-procurement system.
- e) Back-end Transaction Matrix of Electronic receipt of Cost of Tender Paper

on submission of bids is enclosed in the Annexure.

7. Settlement of Earnest Money Deposit on submission of bids:

- a) The Bank will remit the **Earnest Money Deposit** on submission/cancellation of bids to respective bidders accounts as per direction received from TIA through e-procurement system

8. Forfeiture of EMD

Forfeiture of **Earnest Money Deposit on submission of bid** of defaulting bidder is occasioned for various reasons.

- a) In case the **Earnest Money Deposit on submission of bid** is forfeited, the e-procurement portal will direct the Bank to transfer the EMD value from Pooling Account of SPC to the registered account of the tender inviting authority
- b) The tender inviting authorities of the Government Departments will deposit the forfeited **Earnest Money Deposit on submission of bid** in the State Government Treasury under the appropriate head (8782-Cash Remittances and Adjustments between the officers rendering accounts to the same Accounts Officer-102-P.W.Remittance-1683-Remittances-91028-Remittance into Treasury) after taking the amount as a revenue receipt in their cash book under the head 0075-Misc. General Services-00-101-Unclaimed Deposits-0097-Misc. receipts-02080-Misc. Deposits and submit the detail account to DAG (Puri) as a deposit of the Division
- c) By clicking submit button, system will initiate the forfeiture of EMD, system will not allow the evaluator to edit the initiation after clicking the submit button. Forfeiture option can be carried out in phased manner like one bidder at a time.

9. Role of the Banks:

- a) Make necessary provision / customizations at their end to enable the provision for online payments

/ refunds as per this document.
- b) Provide necessary real-time message to bidders regarding successful or unsuccessful transactions during online payment processes and redirect them to e-Procurement website with necessary transaction reference details enabling them to submit their bids.

- c) The bank shall ensure transfer of funds from the pooling account to the Government Head/current account of PSUs/ULBs within the next bank working day as per the directions generated from e-Procurement portal.
- d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.
- e) e) Refund of amount to bidders as per the XML file provided by e-Procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

- a) Communicate requirements of Government departments/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre / the authorised Banks for mapping/ customization.
- b) In every working day, the State Procurement Cell shall generate MIS from the e-Procurement portal to ascertain the tender paper cost received in the e-Tendering process separately bank-wise for the Government Department and the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NEFT/RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.
- c) The State Procurement Cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender inviting authorities for their record.
- d) State Procurement Cell shall monitor the progress of e-Tendering by different Government departments / State PSUs/ Autonomous Bodies / ULBs through an MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e) The e-Procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.
- f) e-procurement system will provide a web service for payment gateway (PG) provider to pull the encrypted refund and settlement details in XML

file against a day.

- g) Similarly, payment gateway (PG) provider will provide a web service to pull the refund and settlement status against a day
- h) e-procurement system will update the status accordingly for reconciliation report.

11. Role of National Informatics Centre :

- a) Customize e-Procurement software and web-pages of Government of Odisha (<https://tendersodisha.gov.in>) to enable the provision for electronic payment.
- b) The NIC, Odisha will modify / rectify the errors in electronic data relating to the Chart of Account.
- c) NIC will provide an interface to organisations to download the electronic receipt data.
- d) Enable automatic generation of daily XML files from e-Procurement system and ensure delivery of the same to the authorised Banks for enabling automatic refund/settlement of funds.
- e) NIC shall enable the e-Procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the State Government account using the Odisha Treasury portal.

12. Role of Cyber Treasury :

- a) The cost of the tender paper deposited by the SPC using the Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the accounts to A.G (O) as per the established process.
- b) The Cyber Treasury will provide MIS as required to the SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

13. Redressal of Public grievances :

- a) The State Procurement Cell, Odisha, National Informatics Centre, Odisha and the e-FPB will have an effective procedure for dealing with, public complaint for e-Receipt related matters. In case, any mistake is detected by any of the stakeholders in reporting of receipt of tender paper cost and EMD, either suomoto or on being brought to its notice, the State Procurement Cell, Odisha, National Informatics Centre, Odisha unit, Cyber Treasury and the bank will promptly take steps for rectification. The e-Focal Point Branch of the

participating Banks, National Informatics Centre, Odisha and the State Procurement Cell, Odisha will notify the contact number and address of the Help Desk for resolution of any dispute regarding e-Receipt.

14. Applicability and modification of existing rules / orders:

The modalities prescribed in this Office Memorandum for downloading of tender paper, submission and rejection of bid, acceptance of Bids as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-procurement portal. Existing provisions regulating cost of tender paper, earnest money deposit in OPWD Code and OGFR would stand modified to the extent prescribed.

- 15.** These arrangements would be made effective after signing of MoU between the designated Banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e-Procurement Portal.

ANNXURE-I

Back-end Transaction Matrix of Electronic receipt and remittance of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
Government Departments	i. The payment towards the cost of Tender Paper, incase Government Departments, shall be collected in separate Pooling accounts opened in Focal Point Branch called e-FPB of respective designated banks [as stated in Para 2] at Bhubaneswar on T+1_day. ii. With reference to the Notice Inviting Tender/ Bid identification Number, the amount so realized is to be remitted to Government Account under the Head of Account 0075-Misc. General Services-800-Other Receipts-0097-Misc. Receipts-02237-Cost of Tender Paper through Odisha Treasury Portal after opening of the bid.	1. In case of Tenders of Government Departments Amount towards Earnest Money Deposit on submission of bids shall be collected in a pooling account opened for this purpose at Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account within two working days on receipt of instruction from TIA through refund and settlement of e-procurement system.

	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
State PSUs Statutory Corporations, Autonomous Bodies and Local Bodies.	I. In case of State PSUs, Statutory corporations, Autonomous Bodies and Local Bodies etc. the amount towards Cost of Tender Paper, on submission of bids shall be collected in separated pooling accounts opened in Focal Point Branch called e-FPB of respective designated Banks at Bhubaneswar on T+1 days. II. The Paper cost will be transferred to the respective current accounts of concerned State PSUs, Statutory Corporation, Autonomous Bodies and Local Bodies etc. after opening of bid.	Amount towards EMD on submission of bids shall be collected in a separate pooling account of Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account on receipt of instruction from TIA through refund and settlement of e-procurement system within two working days from receipt of such instruction In case of forfeiture of Earnest Money Deposit on submission of bids the e-procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA

DETAILS OF BIDDING

A. GENERAL INSTRUCTIONS

If any provision or requirement has inadvertently been omitted from the Notice Inviting Tender (NIT) or DTCN, the decision shall be governed by the prevailing provisions of the OPWD Code, Odisha General Financial Rules (OGFR), Odisha Public Procurement Act/Rules (where applicable), O&M policy as per CPHEEO manual ,Works Department Circulars/Office Memoranda and other applicable Government instructions in force.

1. Scope of Bid

- 1.1. The Employer [*Superintending Engineer, RWS&S Division, Nuapada*] invites bids for the PWS works as mentioned in the NIT on Lump Sum basis with design & execution and maintenance thereafter. (As defined in tender notice, these documents and referred to as “the work”)
- 1.2. The successful bidder will be expected to complete the works by the intended completion date specified in the Contract.
- 1.3. Throughout these bidding documents, the terms 'bid' and 'tender' and their derivatives (bidder, tenderer, bid/ tender, bidding/ tendering, etc.) are synonymous. Contractor means the selected bidder for the work

2. Source of Funds

- 2.1. The expenditure on this project shall be met from the budget Govt. of Odisha/India. **(BASUDHA)**

3. Eligible Bidders

- 3.1 This *Invitation for Bids* is open to all bidders registered with the Govt of Odisha or other state Govt / Govt of India/MES/railways for execution of civil works especially for piped water supply project in particular. Bidders are advised to note the minimum qualification criteria specified in the “Instruction to Bidders” to qualify for the award of contract.
 - 3.1.1. A Bidder shall be deemed to have the nationality of India. Contactor should Deposit cost of tender paper and EMD. Contractor should furnish scanned copy of PAN, Valid GST, Valid contractor registration certificate/license and affidavit for correct information and authentication of the documents furnished.
 - 3.1.2. Government-owned enterprises shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law.
 - 3.1.3. Registered Contractor of **(A & B Class)** of Odisha State PWD or equivalent class of CPWD / Railway / MES / Central or other State Govt. Proof of registration is to be furnished along with the tender.
- 3.2. All bidders shall provide in Section 2, Forms of Bid and Details of Bidder.

The relevant documents and information as provided in Section 2 shall be typed or written in indelible ink and signed by the authorised signatory of the applicant/bidder who shall also initial each page. In case of printed and published Documents, only the cover shall be initialled. All the alterations, omissions, additions or any other amendments made to the Bid shall be initialled by the person(s) signing the proposal. The Bid shall contain page numbers and shall

be bound together in hard cover/spirally bounded. The same should be submitted to the Authority before opening of the Technical Bid in online.

- 3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices.
- 3.4. **History of Litigation and Criminal Record:** If any criminal cases are pending against the Contractor (him/her/partners) at the time of submitting the tender, then the tender shall be summarily rejected.
- 3.5. The Contractor has to furnish a declaration that no near relatives are working in the cadre of an Assistant Engineer/ Assistant Executive Engineer and above in Rural Water Supply & Sanitation (RWS&S) of State of Odisha.

4 Qualification of the Bidder (Test of Responsiveness)

- 4.1. Prior to evaluation of bids, the Authority shall determine whether each bid is responsive to the requirements of the bid document. The bid shall be considered responsive only, if;
- (a) It is received as per formats provided at Appendix of Section 2;
 - (b) It contains all the information and documents (complete in all respects) as requested in this bid document;
 - (c) it contains information in formats same as those specified in this bid document;
 - (d) it is accompanied by the Power of Attorney;
 - (e) **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as SBI/ICICI Bank/HDFC Bank for all Government Departments, State PSUs. Statutory Corporations, Autonomous Bodies and Local Bodies
 - (f) Certificate from the Chartered Accountant specifying the financial turnover for the years to be taken into consideration in Annexure-I
 - (g) It does not contain any condition or qualification; and
 - (h) It is not non-responsive in terms hereof.
 - (i) It should contain Registration certificate, PAN, valid GST certificate, No relation certificate, No litigation certificate, affidavit, work experience certificate for similar nature of work (as prescribed in the format).
 - (j) Price preference of 10 % will be given to contractor belonging to SC/ST category over General caste contractor on submission of affidavit by the SC/ST contractor for availing the benefit of price preference (**up to “B” Class contractor**).
- 4.2. The bidders shall submit the following information and necessary documents along with their bids as per the formats provided in Section 2:
- a) Financial Turnover of the bidder during last five financial years as per Annexure-I.

- b) Experience in PWS works of Similar nature and size and clients who may be contacted for further information on those contracts; Similar nature of work must cover at least one **Conventional Water Treatment Plant or Intake Well or Elevated Service Reservoir or Ground Storage Reservoir of any capacity or laying of pipeline works or RCC Chimney/Silos.**
- c) Information regarding any litigation or arbitration resulting from contracts executed by the bidder in the last five financial years or currently under execution. The information shall include the names of the parties concerned, disputed amount, cause of litigation, and matter in dispute (should be attached in Annexure-IV);

4.3 Bids from joint ventures/ association in firms are not acceptable.

4.4(A) Evaluation Criteria to qualify in the Technical Bid

Only those bidders who meet the eligibility criteria specified in Clause 3.1 and test of responsiveness specified in Clause 4.1 shall qualify for further evaluation under this Clause 4.4. The bids shall be rejected who do not meet the above criteria mentioned in Clause 4.1.

(a) Technical Capacity

The bidder should have successfully completed similar works or any Civil Engineering Works in any one financial year during last five financial years **i.e. from 2021-22 to 2025-26** and up to bid submission deadline of value not less than **30%** of the estimated value of bid for which bids are invited.

The aggregate of payments received during a particular financial year pertaining to the **Completed works** undertaken by the bidder shall be considered for the purpose of meeting the above Technical Capacity.

(b) Financial Capacity

The bidder should have annual turnover from all classes of Engineering work contracts of not less than **40%** of the estimated cost in any one financial year during last 5 (five) financial years **i.e. from 2021-22 to 2025-26.**

A certificate (with UDIN) from the Chartered Accountant of the bidder should be attached in connection with the annual turnover of last 5 years

Regarding price adjustment mechanism (i.e., updated to the price level of the year) as given below: The financial turnover and cost of Completed works of the previous financial years shall be given weightage of 10% per year to bring them to price level of the financial year, i.e., the year of bid invitation. For Example, if the year of bid invitation is 2023-24, then the following weightage factor shall be considered.

Year of completion	Weightage factor
2026-27	1.0
2025-26	1.10
2024-25	1.21
2023-24	1.33
2022-23	1.46
2021-22	1.61

Note:

- (i) The bidder should indicate actual figures of cost and amounts for the work executed by them without accounting for the above mentioned weightage factors.**
- (ii) Completed works means the work that has been satisfactorily completed in all respects.**
- (iii) Similar nature of work must cover at least one Conventional Water Treatment Plant or Intake Well or Elevated Service Reservoir or Ground Storage Reservoir of any capacity or laying of pipeline works or RCC Chimney/Silos/civil works as mentioned.**
- (iv) The bidder has to provide documentary evidence from the Client certifying the work has been completed to the extent of value equal to 30% of the estimated value of the bid as per Annexure-II. The experience certificate shall be provided by the bidder as per format at ANNEXURE-II, failing which the bids of the bidder shall be rejected.**

4.4(B) DELETED

4.5 Sub contractor's experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria.

4.6. Calculation of Assessed Available Bid Capacity: These stipulations shall apply to all works above Rs.3.00 Crores.

Only those Bidders who meet the eligibility criteria as specified in Clause 3.1, test of responsiveness specified in Clause 4.1, evaluation criteria as per clause 4.4 (A) and if their available bid capacity is more than the total bid value shall be shortlisted for financial opening. The available bid capacity will be calculated as under,

$$\text{Assessed Available Bid capacity} = (A \times N \times 2 - B)$$

Where

A = **Maximum value of works executed in any one financial year during the last five financial years (updated to bid invitation year [say at 2026-27] price level) taking into account the completed as well as works in progress.**

N = Number of years prescribed for completion of the works for which bids are invited.

B = Value (updated to the price level of the year indicated in Appendix) of existing commitments and ongoing works to be completed during the next year(s) [period of completion of the works for which bids are invited].

Note: The statements showing the value of existing commitments and on-going works as well as stipulated period of completion remaining for each of works listed and to be furnished at Appendix, S No. 1.3 of this document countersigned by the EIC, not below the rank of an Executive Engineer or equivalent or bidder's Chartered Accountant.

The value is to be calculated for A & B, i.e., updated to the price level on the financial year in which bids are received. The rate of inflation may be taken as 10% per year (escalation factor) which will be taken into account (as per Works Department O.M. no.6300 dated 16.06.2011).

Following enhancement factors will be used for the cost of works executed and the financial figures to a common base value for works completed in India.

Year before	Multiplying factor
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

Note: The bidder should indicate actual figures of cost and amounts for the work executed by them without accounting for the above-mentioned escalation factors.

4.7 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
- Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5. One Bid per Bidder

5.1. Each bidder shall submit only one bid for one work. A bidder who submits or participates in more than one bid (other than as a sub-contractor or in case of alternatives that have been permitted or requested) will cause all the proposals with the bidder's participation to be disqualified.

6. Cost of Bidding

6.1. The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

7. Site Visit

7.1. The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

B -BIDDING DOCUMENTS

8. Content of Bidding Documents

- 8.1. The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10

Section	Particulars	Volume No
	Invitation for Bids	I
1	Instructions to Bidders	
2	Form of bid, Details of Bidder, and other forms	
3	Conditions of Contract	
4	Contract data	
5	Scope of work, Technical Specifications & Design Criteria	II
6	Securities and other forms	III
7	Drawings	IV
8	Project execution & supervision aspects, contract management framework & payment schedule	
9	Checklist of Documents to be furnished by bidder	V

- 8.2. The bidder shall download the above listed documents as listed under volume **I, II, III** and **IV** and shall submit his bid online after preparing the same (refer Clause 12)
- 8.3. The bidder shall be expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, and technical specifications, forms, annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to Clause 26 thereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

9. Clarification of Bidding Documents

- 9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex, facsimile and e-mail) at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification, which he received earlier than 15 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

9.2 Pre-Bid Meeting

- 9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which shall be held on dt. 19.09.26 at hours 11.00 AM at the office of Superintending Engineer, RWS&S Division, Nuapada.

- 9.2.2 The purpose of meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 9.2.3 The bidder is requested to submit any questions in writing to reach the Employer not later than one week before the meeting.
- 9.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in sub clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.
- 9.2.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

- 10.1 Any addendum / corrigendum/ cancellation of tender shall be published in the website <https://tendersodisha.gov.in> , notice board and through paper publication and such notice shall form part of the bidding documents.
- 10.2 The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to which the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender inviting authority is not responsible for communication failure of system generated mail.

All the volumes/documents shall be uploaded / provided in the portal by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and up load the scanned documents in Portable Document Format to the portal in the designated locations of Technical Bid.

- 10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, extend as necessary, the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.
- 10.4 DELETED
- 10.5 Price preference of 10 % will be given to contractor belonging to SC/ST category over General caste contractor on submission of affidavit by the SC/ST contractor for availing the benefit of price preference (**up to "B" Class contractor**)

C. PREPARATION OF BIDS

11. Language of the Bid

11.1. All documents relating to the bid shall be in the English language.

12. Documents Comprising the Bid

The bid to be submitted by the bidder shall be in two separate parts in the online system:

COVER - I shall be named "Technical Bid" super-scribed "Nuapada district" and shall comprise (to be submitted in online) of:-Technical bid should contain:

- (i) Technical bid (in the format indicated at section-2)
- (ii) Cost of tender paper and EMD through online payment system.
- (iii) Certificates, undertakings, affidavits as specified in Section 2
- (iv) Copy of valid Registration Certificate
- (v) Copy of PAN Card
- (vi) valid GST Registration Certificate.
- (vii) No relationship Certificate, No litigation certificate
- (viii) Chartered Accountant Certificate with respect to financial turnover as per Annexure-I.
- (ix) Similar nature of work as specified in section 2.

N.B: DTCN is not to be uploaded by the bidder. The bidder has to only agree/disagree on the conditions mentioned in the DTCN. The bidders, who disagree on the conditions of DTCN, cannot participate in the tender.

COVER - II shall be named "Financial Bid" and shall comprise of Bill of Quantity (BOQ), i.e., Lump Sum Bid and any other related information /undertaking including rebates (to be submitted in on-line only)

The protected BOQ uploaded by the procurement officer-publisher for the bid is the authentic BOQ. Any alteration or deletion or manipulation of BOQ shall lead to cancellation of Bid **(the offline copy of the price bid is not permitted)** only the price bid is to be submitted in online.

Note: Payment schedule during construction Form of Bid as specified in Section 8 and clause No. 51.2 under Section 3

13. Bid Price

- 13.1 The contract shall be for the whole works as described in Sub-Clause 1.1, based on the Lump Sum price Bid submitted by the Bidder.
- 13.2 The Bidder shall fill the total bid price Lump Sum Price (both in figures and words) for all items of works as specified in the Bid document. Correction, if any, shall be made by crossing out, initialling, dating and rewriting.
- 13.3 All duties, taxes and other levies payable by the Bidder under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
- 13.4 The Lump Sum bid price quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

14. Currencies of Bid and Payment

- 14.1. The currency of bid and payment shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

- 15.1. Bids shall remain valid for a period **not less than 90 (NINTY) days**.

16 Bid Security (EMD)/ ISD/ Security Deposit/ Additional Performance Security & GSTIN.

16.1 Earnest Money Deposit:

The Earnest Money Deposit (EMD) shall be of **1% of estimated cost** and paid in online mode. EMD in any other mode shall not be accepted.

16.2. Return of EMD:

Earnest money given by all contractors except the three lowest tenders shall be refunded within a week from the date of opening of price bid on application / request.

The earnest money given by other two parties (L₂ & L₃) except one whose tender is accepted shall also be refunded within 15 (fifteen) days of the acceptance of the tender on application / request.

EMD shall also be returned to the unsuccessful bidders of General & Technical Bid (Part – I of tender documents) after finalisation of its evaluation or last date of the tender validity period whichever is earlier on application / request.

16.3. Initial Security Deposit:

The successful Tenderers, after receipt of formal order shall have to furnish Initial Security Deposit (ISD) equal to 2% (two percent) of the value of the order, in shape of NSC/ postal saving pass book / post office time deposit / Kishan Vikash Patra / deposit receipt in schedule bank duly pledged in favour of the **S.E., RWSS Division, Nuapada** payable at **Nuapada** with in 7 (seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

16.4. Additional Performance Security:

Additional Performance Security should be furnished by the successful bidder when the bid amount is less than the estimated cost put to tender. In such an event, only the successful bidder who has quoted less bid price/ rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) as mentioned below: -

Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:

1. Where the bid price is below 0% but not below 10% of the project cost put to bid, no additional performance guarantee/ security percentage is required.
2. Where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance guarantee/ security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price;
3. Where the bid price is 20% or more below the project cost put to bid, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid and additional performance guarantee percentage shall be applied on the bid price;
4. The additional performance guarantee percentage shall be rounded to the next lower percentage based on the whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.
5. The additional performance security shall be treated as part of the performance security.

(Vide Office Memorandum No. 173 / W, Bhubaneswar dated. 03.01.2026 of Government of Odisha, Works Department)

Additional Performance Security (APS) in shape of TDR/ STDR issued by Nationalized Bank/ NSC/KVP/ Post Office Time Deposit/ Post Office Saving Bank account/Bank Guarantee pledged in favour of The Superintending Engineer, RWS&S Division, Nuapada with seven days i.e. from the date of issue of intimation to the bidder, if the bidder fails to deposit the required APS by the schedule date and time, the bid stands automatically cancelled along with forfeiture of Earnest Money Deposit no complaint what so ever will be entertained hereafter. Further proceeding for black listing shall be initiated against the defaulting bidder/ contractor.

16.5. GST Registration Number/ GSTIN:

Tenderers are required to submit copies of valid and GST Registration certificate along with their tenders, failing which their tenders will not be considered.

16.6. Performanace Security Deposit

In addition to that **5% or 7% of gross value** will be deducted from bill(s) of the contractor toward **Security Deposit (SD)** which will be refunded after successfully completing of Operation and maintenance for 5 years and payment of final bill.

16.7. The EMD shall be forfeited if, (a) a contractor withdraws the tender during the validity period of tender or (b) if the firm fail to furnish ISD within due time or (c) the successful tenderer fails to sign the Agreement for whatever reason ,then he shall be blacklisted/debarred as per codal provisions.

16.8. In consideration of the Executive Engineer / Superintending Engineer / Chief Engineer / Government to investigate and to be taken into account each tender and in consideration of the work thereby involved, all earnest money deposited by the tenderer will be forfeited in the event of such tenderer either modifying or withdrawing his tender at his instance within the validity period.

16.9. DELETED

16.10 Any bid not accompanied by an acceptable Bid Security as indicated in Sub Clause 16.1 above shall be rejected by the Employer as non-responsive.

16.11 The Bid Security of unsuccessful bidders will be returned within 28 days of the end of the bid validity period specified in Sub-Clause 15.1.

16.12 The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security (The same should be followed as per para 3.5.20 along with the notes of OPWD code Vol-1)

16.13 The Bid Security may be forfeited

(a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity;

(b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to

(i) Sign the Agreement; or

(ii) Furnish the required Performance Security.

(iii) Deposit the required license fees with the State Govt to registered itself as special/super class contractor with Govt of Odisha within 15(fifteen) days of issue of Letter of Acceptance of Bid.

17. Alternative Proposals by Bidders

17.1. Bidders shall submit offers as per his own estimate based on his own design & drawing but compiling with the requirements of the bidding documents, including the basic technical design parameter as indicated in the drawing and specifications. **Conditional offer or alternative offers will not be considered further in the process of tender evaluation.**

18. Format and Signing of Bid - Refer e- procurement procedure as annexed in Annexure - V

D. SUBMISSION OF BIDS

Online submission as per Govt. of Odisha e-procurement procedure annexed

19. Sealing and marking of Bids

19.1 The Applicant/Bidder shall submit the Application/Bid in the format specified in the Bidding Document, together with the documents (scanned Copies) specified in Clause 12 in on line only. One set of hard copy of such uploaded Application/Bid together with the documents shall be submitted to the Superintending Engineer, R.W.S.S Nuapada, Odisha in the address mentioned in clause 19.3 before 17.00 hours of date mentioned as per NIT as mentioned in Clause no.12 in a sealed envelope excluding the price bid. The sealed envelope should be submitted physically before the due date & time to the designated officer of the department on behalf of EE/SE, RWSS Division/Circle, Nuapada.

The envelope containing such hard copy of application/bid shall be marked as “Bid for the work (insert tender name)” and shall clearly indicate the name and address of the Applicant/Bidder. In addition, the Application/Bid Due Date should be indicated on the right-hand corner of each of the envelopes.

19.2 The documents shall contain:

- (i) Application/Bid in the prescribed format given in Clause 12 along with supporting documents;
- (ii) Cost of tender paper and EMD through electronic payment system.
- (iii) Sealed cover for Additional performance security as per Clause No.16.4
- (iv) Documents as per Appendix of Section-II.
- (v) Notary affidavits in support of authenticity of above documents, No relationship certificate and No litigation certificate as per section 2.
- (vi) Registration Certificate, PAN Card, GST Clearance Certificate, Turnover Certificate from Chartered Accountant with break-up of construction work and total work for each financial year, and Similar nature of work as specified in Annexure-II of section 2.

19.3 The envelope containing hard copy shall be addressed to:

ATTN. OF:

DESIGNATION: Superintending Engineer, R.W.S.S Division, Nuapada

ADDRESS: Office of the Superintending Engineer, RWSS Division, Nuapada

(Detail office address to be given)

19.4 The hard copy (off-line copy) of application/bid submitted in the above address will only be opened and referred in case the application/bid is received in on-line and on-line copy is not legible. However, the contents of on-line copy shall be only be considered for evaluation. If the envelope containing the hard copy of application/bid are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Application/Bid and consequent losses, if any, suffered by the Applicant/Bidder.

19.5 Applications/Bids submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected.

20. Deadline for Submission of the Bids:

20.1 Applications/Bids shall be received only on "on-line" on or before 17.00 hours IST on the application/bid due date. The hard copy of such uploaded applications/bids should be submitted on or before 17.00 hours IST date mentioned as per NIT at the address provided in Clause 19.3 in the manner and form as detailed in this document.

20.2 The Authority may, in its sole discretion, extend the Application/Bid Due Date by issuing an Addendum/corrigendum uniformly for all Applicants/Bidders.

20.3 Modifications/ substitution/ withdrawal of Applications/Bids

20.4 In the e-Procurement Portal, it is allowed to modify the Application/Bid number of times after necessary modification, before the final date and time of submission. The Applicant/Bidder shall have to log on to the system and resubmit the documents as asked for by the system. In doing so, the Application/Bid already submitted by the Applicant/Bidder will be removed automatically from the system and the latest Application/Bid only will be admitted. But the Applicant/Bidder should avoid modification of Application/Bid at the last moment to avoid system failure or malfunction of internet or traffic jam. If the Applicant/Bidder fails to submit his modified Application/Bid within the designated time of receipt, the Application/Bid already in the system shall be taken for evaluation.

In the e-Procurement Portal, withdrawal of bid is allowed. But in such case, he has to write a letter written notice of the modification, substitution or withdrawal addressed to the Authority and upload the scanned document to portal in the respective Application/Bid before the closure of receipt of the Application/Bid. The system shall not allow any withdrawal after expiry of the closure time of the Application/Bid.

20.5 Any alteration/ modification in the Application/Bid or additional information supplied subsequent to the Application/Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded

20.6 Bid shall be received only ONLINE on or before [18.08.2022 5.00 pm] as notified in IFB.

20.7 The Employer may extend the dead line for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21 Late Bids: Not applicable as per e-procurement procedure.

22. Modification and

Withdrawal of Bids: Refer e-procurement procedure as per Clause 20.4

22.1 Schedule of Bidding Process

The Authority shall endeavour to adhere to the following schedule

S No.	Event Description	Date
1	Pre-Bid Meeting	11.00 hrs dated.19.09.2026
2	Bid Due Date (submission in online)	17.00 hrs dated.24.09.2026
3	Bid opening date in online	11.00 hrs dated.25.09.2026
4	Announce of technically qualified bidders	Within 30 days of Bid Due Date

E. BID OPENING AND EVALUATION

23. Bid Opening

- 23.1 All the bids received shall be opened ONLINE in the office of [insert name of office] on [insert date and time] in the presence of the bidders or their representatives who choose to attend. In the event of the specified date of Bid opening being declared a holiday, the Bids will be opened at the appointed time and location on the next working day.
- 23.2 The employer shall prepare minutes of the bid opening.

24. Process to be Confidential

- 24.1 Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

25. Clarification of Financial Bids

- 25.1 To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask the lowest evaluated responsive bidder for clarification his bid, including breakdown of unit rates. The request for clarification and the response shall be in writing or by cable/e-mail, but no change in price or substance of the Bid shall be sought, offered, or permitted.
- 25.2 Subject to sub clause 25.1, no bidder shall contact the Employer or any matter relating to his bid from the time of bid opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the Employer, it should do so writing.
- 25.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Tender Opening:

- 26.1 The **Superintending Engineer, RWS&S Division, Nuapada** will open the tenders electronically on the date & time mentioned in the **Notice Inviting Tender (NIT)**.

26.2 Eligibility criteria

1. Cost of tender and EMD through electronic payment system
2. In the case of non submission of following documents, the bid will be summarily rejected.
 - a) Valid PAN
 - b) Affidavit on authenticity of the documents submitted by the bidder.
 - c) No litigation certificate as per prescribed format in Annexure-IV.
 - d) Valid GST Registration Certificate
 - e) Valid Registration certificate (contractor license)
 - f) No Relation certificate as per prescribed format in Annexure-III.

- g) Work experience certificate not below the rank of Executive Engineer/equivalent as per prescribed format in Annexure-II(Work Experience will be taken only in respect of PWS works of Similar nature and size and clients who may be contacted for further information on those contracts; Similar nature of work must cover at least one **Conventional Water Treatment Plant or Intake Well or Elevated Service Reservoir or Ground Storage Reservoir of any capacity or laying of pipeline works or RCC Chimney/Silos.**)
- h) Financial turnover certificate of the bidder during last five financial years certified by Chartered Accountant with UDIN no. as per prescribed format in Annexure-I.

26.3. Any such conditions shall be minute and the price bid shall not be opened. The price bid shall be opened only for those bidders who qualify in the technical evaluation as described at **Clause – 29**. The date of opening of price bid shall be intimated by FAX/ E-mail/ Speed Post to the qualified bidder of technical evaluation.

26.4. The **Superintending Engineer, RWS&S Division, Nuapada** may prepare, for his own record, minutes of the tender opening, including the tender opening summary which shall be posted in the portal.

27 **If any provision has been left out in the NIT or the DTCN, the decision regarding qualification shall be taken in accordance with the prevailing codal provisions and OGFR rules.**

28. **Determination of Responsiveness:**

28.1 Prior to the detailed evaluation of tenders, **Superintending, RWS&S Division, Nuapada** will determine whether each tender has been submitted in the proper form and whether it is substantially responsive to the requirements of the tender documents. Tenders, which have not been submitted in the proper form, will be rejected.

28.2 Any tender which is not substantially responsive to the requirements of the tender documents will be rejected by the **Superintending, RWS&S Division, Nuapada**. Such a tender shall not be allowed subsequently to be made responsive by the contractor by correcting or withdrawing the non-conforming deviation(s) or reservation(s).

28.3 **Bid Capacity:** These stipulations shall apply to all works above **Rs.3.00 Crores**.

Applicants who meet the minimum qualification criteria will be qualified only if their available bid capacity at the expected time of bidding is more than the total estimated cost of the works. The available bid capacity will be calculated as under:

Assessed Available Bid Capacity = (A*N*2-B), where

A = Maximum value of works executed in any one year during the last five financial years (updated to the current price level) rate of inflation may be taken as 10 percent per year (escalation factor) which will take in to account the completed as well as works in progress.

B = Value of current price level of the existing commitments and ongoing works to be completed during the next years (Period of completion of works for which bids are invited) and

N = number of years prescribed for completion of the works for which the bids are invited.

Note: In case of a joint venture, the available bid capacity will be applied for each partner to extent of his proposed participation in the execution of the works.

The statement showing the value of existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the EIC not below the rank of an Executive Engineer.

Escalation Factor:

Following enhancement factors will be used for the costs of works executed and the financial figures to a common base value for works completed in India.

<u>Year before</u>	<u>Multiplying factor</u>
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

(Applicant should indicate actual figures of costs and amounts for the work executed by them without accounting for the above-mentioned factors)

In case the financial figures and value of completed works are in foreign currency the above enhanced multiplying factors will not be applied. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conversion of amount in foreign currency into Indian rupees.

(Works Department. OM No-FA-Codes-97/11-6300 Dt-16.06.2011)

29. Proposal Evaluation:

- 29.1 From the time of the proposals are opened to the time, the contract is awarded, the contractor should not contact the client on any matter related to its Technical and/or Financial Proposal except any required in Clause-27.
- 29.2 Any effort by a bidder to influence the client in any form directly or indirectly during the examination, evaluation, ranking of proposals, and recommendation for award of the contract may result in the rejection of the contractor's proposal.
- 29.3 Evaluation of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

29.4 Evaluation of Technical Proposals:

- 29.4.1 The Evaluation Committee shall evaluate the Technical Proposals on the basis of their responsiveness to the DTCN.
- 29.4.2 A Proposal shall be rejected at this stage if it does not respond to required aspects of the NIT / DTCN.
- 29.4.3 During technical evaluation, the tenderers may have to make a presentation on their technical proposal before the Evaluation Committee if felt necessary. The date of such presentation shall be intimated to them in writing or by mail.

30. Evaluation of Financial Proposals:

- 30.1. After the technical evaluation is completed, the Employer shall inform in writing or by mail to the contractors, who have qualified in the General and Technical bid (Part-I of DTCN), the date, time and location for opening the Financial Proposals (Price Bids).
- 30.2 Financial Proposals of the bidders who qualified in technical evaluation shall be opened.
- 30.3. Financial bids determined to be substantially responsive will be checked by the employer for any arithmetic error(s). Two digits will be taken in consideration.
- 30.4. In case of discrepancy between a partial amount and the total amount or between words and figures, the amount in words will prevail.
- 30.5 If the bid price increases as a result of these corrections, the amount as stated in the bid will be the bid price and any increase will be treated as rebate. If the bid price decreases, the decreased amount will be treated as bid price.

31. Selection of contractor on the basis of Price Bid:

Other condition being equal, the contractor bidding the lowest price will be considered for acceptance by competent authority.

32. Negotiations:

- 32.1. Negotiations will be held if required with the lowest valid tenderer. In the event of the L₁ tenderer has furnished any condition which grossly affects the tender value / contains such conditions which make the value of the offer indefinite, he may be given an opportunity to withdraw such condition(s) to make the tender definite. Failure to withdraw such condition(s) may lead to rejection of the tender as inconsistent / non-responsive. In such case the employer may explore the possibility of considering the next valid tender as L₁.
- 33. A substantially responsive "Bid" is one which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the works; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the bidder's obligations under the contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

33.1 If a “Bid” is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of non-conforming deviation or reservation.

34. Correction of Errors - Not applicable as per e-procurement procedure.

35. Evaluation and Comparison of Financial Bids

35.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 26.

35.2 The Employer reserves the right to accept or reject any variation arising out of change in scope of work. Such variations, which are in excess of the requirements of the bidding documents, shall not be considered in Bid evaluation.

F. AWARD OF CONTRACT

36. Award Criteria

- 36.1. Subject to Clause 30, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3 and (b) qualified in accordance with the Clause 4.
- 36.2 In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

37. Employer's Right to accept any Bid and to reject any or all Bids

- 37.1. Notwithstanding Clause 29, the Employer reserves the right to accept or reject any Bid and to cancel the Bidding process and reject all Bids at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

38. Notification of Award and Signing of Agreement

- 38.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Bidder in consideration of the design, execution, completion of the works on a turnkey basis and maintenance of the same by the Bidder as prescribed by the Contract (hereinafter and by the Contract called the "Contract Price").
- 38.2 The notification of award will constitute the formation of the Contract, subject to condition that after furnishing of a performance security in accordance with the provisions of Clause 32, the award will be complete.
- 38.3. The contract will incorporate all agreements between the Employer and the successful Bidder. The detail work programme and milestone wise activity shall be finalized during contract negotiation with the successful bidder within 14 days after notification of award. The agreed work programme/ milestone shall form part of the contract agreement. The agreement will be signed by the Employer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Employer.
- 38.4 Upon the furnishing by the successful Bidder of the performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.
- 38.5 In the event of non-payment of the performance security by the L1 bidder, the other successful bidders in sequence (L2, L3...) may be asked for negotiation for execution of work with the bid price quoted by the L1 bidder.

39. Performance Security

39.1 Initial Security Deposit:

The successful Bidder, after receipt of formal order shall have to furnish Initial Security Deposit (ISD) equal to 2% (two percent) of the value of the order together with the EMD deposited with the tender, in shape of NSC/ postal saving pass book / post office time deposit / Kishan Vikash Patra / deposit receipt in schedule bank duly pledged in favour of the **S.E., RWSS Division, Nuapada** payable at **Nuapada** within 7 (seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

39.2. Additional Performance Security:

Additional Performance Security should be furnished by the successful bidder when the bid amount is less than the estimated cost put to tender. In such an event, only the successful bidder who has quoted less bid price/ rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) as mentioned below: -

- i. Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:**
- ii. Where the bid price is below 0% but not below 10% of the project cost put to bid, no additional performance guarantee/ security percentage is required.**
- iii. Where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance guarantee/ security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price;**
- iv. Where the bid price is 20% or more below the project cost put to bid, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid and additional performance guarantee percentage shall be applied on the bid price;**
- v. The additional performance guarantee percentage shall be rounded to the next lower percentage based on the whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.**
- vi. The additional performance security shall be treated as part of the performance security.**

(Vide Office Memorandum No. 173 / W, Bhubaneswar dated. 03.01.2026 of Government of Odisha, Works Department)

Additional Performance Security (APS) in shape of TDR/ STDR issued by Nationalized Bank/ NSC/KVP/ Post Office Time Deposit/ Post Office Saving Bank account/Bank Guarantee pledged in favour of The Superintending Engineer, RWS&S Division, Nuapada with seven days i.e. from the date of issue of intimation to the bidder, if the bidder fails to deposit the required APS by the schedule date and time, the bid stands automatically cancelled along with forfeiture of Earnest Money Deposit no complaint what so ever will be entertained hereafter. Further proceeding for black listing shall be initiated against the defaulting bidder/ contractor.

39.3. GST Registration Number/ GSTIN:

Tenderers are required to submit attested copies of GST Registration Certificates along with their tenders, failing which their tenders will not be considered.

39.4. Performance Security Deposit

In addition to that **5% or 7% of gross value** will be deducted from bill(s) of the contractor toward **Security Deposit (SD)** which will be refunded after successfully completing O&M for 5 year and payment of final bill.

39.5 If the performance security is provided by the successful bidder in the form of a Bank Guarantee, it shall be issued either (a) at the bidder's option, by a Nationalized/Scheduled Indian or (b) by a foreign Bank located in the state and acceptable to the Employer.

39.6 Failure of the successful bidder to comply with the requirements of sub-clause above shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid security.

40. DELETED

41. Corrupt or Fraudulent Practices

41.1 It is required that the bidders / contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, it is;

(a) Defined, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution and

(ii) "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 Employer 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 Government of the benefit of free and open competition.

41.2 The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

- 41.3 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 23.2 and sub-clause 54.2 of the Conditions of Contract.

SECTION 2

FORMS OF BID, QUALIFICATION, INFORMATION AND LETTER OF ACCEPTANCE

TABLE OF FORMS:

- FORMATS FOR NECESSARY DOCUMENTS(FINANCIAL STATEMENT CERTIFIED BY CA, WORK EXPERIENCE CERTIFICATE, NO RELATION CERTIFICATE, NO LITIGATION CERTIFICATE)
- LETTER OF ACCEPTANCE
- NOTICE TO PROCEED WITH THE WORK
- AGREEMENT FORM

Annexure-I

FINANCIAL STATEMENT
[To be given separately for each constituent Firm]

Should be audited for five years by Regd. Chartered Accountant or competent financial organization / authority. The audit certificate should be included with the document.

- 1) Name of Applicant:
- 2) Annual turnover in all classes of engineering works pertaining to works contract undertaken for each of the last five financial years.

(Rs. In lakh)

FINANCIAL YEAR	Total
	Total Turnover
2025-26	
2024-25	
2023-24	
2022-23	
2021-22	

N.B: The year mentioned above is an example. The TIA should incorporate the year as per the requirement.

1. UDIN NO:-

Signature & Seal of CA

Signature of Bidder with seal

WORK EXPERIENCE

1. Name of the firm:
2. Total number of years of experience in civil construction work :
3. List of the similar works executed during last 5 years (as per clause 4.2(b)).

(Rs. in lakh)

Name of the work/ location Agreement No. & Dt.	Name of the employer	Value of Contract price	Total Value of work executed (excluding GST)	Financial year-wise Computed amount	Stipulated date of commencement	Stipulated date of completion	Actual completion date	Remarks
1	2	3	4	5	6	7	8	9

NB: Certification of the employer not below the rank of Executive Engineer/equivalent is to be furnished in support of the above claim

ANNEXURE-"III"

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* **related/not related**(*) to any officer of RWS&S of the rank of Assistant Engineer & above and any officer of the rank of Assistant / Under Secretary and above of the Works Department, Govt. of Odisha I/We* am/are* aware that, if the facts subsequently proved to be false, my/our* contract will be rescinded with forfeiture of E.M.D and security deposit and I/We* shall be liable to make good the loss or damage resulting from such cancellation.

I/We also note that, non-submission of this certificate will render my / our tender liable for rejection.

(*) - Strike out which is not applicable

Signature of the Bidder Date: -

Annexure-IV

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING/ EXPELLING OF TENDER OF
ABANDONMENT OF WORK BY TENDER DULY NOTORISED**

1. (a) Is the applicant currently involved in any litigation relating to any contract works - **Yes/No**
(b) If yes, give details

2. (a) Has the applicant or any of its constituent partners have been debarred / expelled by any agency in India during the last 5 years - **Yes/No**
(b) If yes, give details

- 3 (a) Has the applicant or any of its constituent partners failed to perform/absconded/ rescinded on any contract work in India during the last 5 years - **Yes/No**
(b) If yes, give details

Note: If any information in this schedule is found to be incorrect or concealed pre-qualification application will be summarily rejected.

AFFIDAVIT

1 I, the undersigned, do hereby certify that all the statements made in the required attachments for the work **[Name of the work]** are true and correct.

2 The undersigned also hereby certifies that neither our firm M/s..... have abandoned any work on RWSS/PHEO in India nor any contract awarded to us by the state of Odisha for such works have been rescinded, during last five years prior to the date of this bid.

3 That, I swearing this affidavit to submit the same before the Superintending Engineer, Nuapada for execution of the tender work.....in response to e-procurement Notice Bid identification no.....

4 The undersigned hereby authorise(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.

6. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department/ Project implementing agency.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

Executive Instruction regarding calling for and acceptance of tenders in e-Procurement in Govt. of Odisha

**Government of Odisha
Works Department**

Office Memorandum

File No.07556900042013 (Pt-II) – 7885/W Dated 23.07.2013

Sub: Codal Provision regarding e-Procurement

After introduction of e-procurement in Government of Odisha, necessary guidelines/ procedures has been issued in Works Department Office Memorandum No-1027 dt.24.01.2009 which consists of the procedural requirement for e-procurement of tenders. After careful consideration Government have been pleased to make following modifications to codal provisions by way of addition as Appendix – IX(A) of OPWD Code Vol.-II) as follows:

(Appendix-IX (A) of OPWD Code, Vol-II)

Executive instructions regarding calling for and acceptance of tenders in e-Procurement

1. This office memorandum consists of the procedural requirement of e-procurement and shall be made part of the Detailed Tender Call Notice or Instruction to Bidder for all “works” tenders hoisted in the portal.
2. The e-procurement portal of Government of Odisha is “<https://tendersodisha.gov.in>”.
3. Use of valid Digital Signature Certificate of appropriate class (Class II or class III) issued from registered certifying authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-Procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration have decided to hoist all tenders costing 05 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and Housing & Urban Development Department. Government of Odisha also welcomes hoisting of tenders by any other departments, authority, corporations, local bodies etc. of the State with prior approval from Works Department. Works Department is the Nodal Department for the implementation of e-Procurement in the State.

7. The e-procurement shall be operated compliant to relevant provisions of OGFR/ OPWD code/ Accounts code/ Government statutes including any amendments brought from time to time to suit to the requirement of the best national practice.
8. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.
9. Contractor not registered with Government of Odisha, can participate in the e-Procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management “Department” is the Administrative Department, Organisation or wing is the Chief Engineer or highest tender accepting authority or equivalent officer, Division is the Executive Engineer or equivalent Officer and Subdivision is the Assistant Engineer or equivalent officer.
11. The e-Procurement software assigns roles for operation of the module for specific function. The terminologies used in the portal and their respective functions in the software are as follows.
- 11.1 Application Administrator (NIC & State Procurement Cell)
- (i) Master Management
 - (ii) Nodal Officer Creation
 - (iii) Report Generation
 - (iv) Transfer of Officer’s login ID
 - (v) Blocking & unblocking of officer’s and bidder’s login ID.
- 11.2 Nodal Officer (At organization level not below the Superintending Engineer or equivalent rank)
- (i) Creation of Users
 - (ii) Role Assignment
 - (iii) Report Generation
 - (iv) Transfer of Officer’s login ID
 - (v) Blocking & unblocking of officer’s Login ID.
- 11.3 Procurement Officer Publisher (Officer having tender inviting power at any level)
- (i) Publishing of Tender
 - (ii) Publishing of Corrigendum / addendum / cancellation of Tender
 - (iii) Bid Clarification
 - (iv) Uploading of Pre-Bid minutes.
 - (v) Report generation.
- 11.4 Procurement Officer Administrator (Generally sub-ordinate officer to Officer Inviting Tender)
- (i) Creation of Tender
 - (ii) Creation of Corrigendum / addendum / cancellation of Tender
 - (iii) Report generation.
- 11.5 Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender)
- (i) Opening of Bid
- 11.6 Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender)
- (i) Evaluating Bid
- 11.7 Procurement Officer-Auditor (Procurement Officer Publisher and/or Accounts Officer / Finance Officer)
- (i) To take up auditing
-

12. NOTICE INVITING BID (NIB) or INVITATION FOR BID (IFB):

12.1. The Notice Inviting Bids (NIB) and Bid documents etc., shall be in the Standard formats as applicable to conventional Bids and will be finalized / approved by the officers competent as in the case of conventional Bids.

12.2. The officers competent to publish NIB in case of conventional Bids will host the NIB in portal. Simultaneously, a notification should also be published in the newspapers, as per existing rules preferably, in the following format, to effect economy:-

Government of Odisha "e" Procurement Notice

A. Bid Identification No. :.....

1. Name of the work: _____
2. Estimated cost: Rs. _____
3. Period of completion _____
4. Date & Time of availability of bid document in the portal _____
5. Last Date / Time for receipt of bids in the portal _____
6. Name and address of the O.I.T. _____

Further details can be seen from the e-procurement portal "<https://tendersodisha.gov.in>"

12.3. The tender documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website <https://tendersodisha.gov.in> will appear in the "Latest Active Tender". The Bidders/ Guest Users can download the Bid documents only after the due date & time of sale. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Notice inviting Bid' after which the same will be removed from the list of "Latest Active tenders".

12.4. Registration in the Contractors Data Base Management System (CDMS) available at www.cdmsodisha.gov.in by all Contractors is mandatory.

13. ISSUE OF ADDENDA/ CORRIGENDA/ CANCELLATION NOTICE:

13.1. The Procurement Officer Publisher (Officer Inviting Tender) shall publish any addendum/ corrigendum/ cancellation of tender in the website <https://tendersodisha.gov.in>, notice board and through paper publication and such notice shall form part of the bidding documents.

13.2. The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to watch the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender Inviting Authority is not responsible for communication failure of system generated mail.

14. CREATION AND PUBLISHING OF BID:

14.1. All the volumes/documents shall be uploaded in the portal by the tender creating officer (Procurement Officer Administrator) and published by the Officer Inviting Tender (Procurement Officer Publisher) using their DSCs in appropriate format so that the document is not tampered with

14.2. The tender document comprise the notice inviting tender, bid document/ SBD, drawings in .pdf format and the schedule of quantities / BoQ in .xls format to be uploaded by the Officer Inviting Tender.

14.3. Procurement Officer Administrator creates tender by filling up the following forms:

- i. BASIC DETAILS
- ii. COVER CONTENT: The Procurement officer Administrator should briefly describe the name and type of documents to be uploaded by the bidder in the following format:

(a) For Single Cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical/ Finance	Tender Cost, EMD, GSTIN, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
		BoQ	.xls

(b) For Two Cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical	Tender Cost, EMD, GSTIN, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
2	Finance	BoQ	.xls
		Special condition if any specifically mentioned by Officer Inviting Tender	.pdf

- iii. TENDER DOCUMENT: The Procurement Officer Administrator should upload the NIT in .pdf format.
- iv. WORK ITEM DETAILS
- v. FEE DEATILS: The Procurement Officer Administrator should mention the cost of tender paper and EMD amount as laid down in DTCN/SBD.
- vi. CRITICAL DATES: The Procurement Officer Administrator should mention the critical dates of tender such as publishing date, document download start date & end date, seek clarification start date & end date (optional), bid submission start date & closing date, bid opening date as per DTCN/SBD.
- vii. BID OPENER SELECTION: The Procurement Officer creator can select two / three / four bid openers for a particular bid. If required the bid openers can also be selected within an organization from other procurement units (Circles /Divisions).
- viii. WORK ITEM DOCUMENTS: The Procurement Officer Administrator should upload the digitally signed tender document (SBD/DTCN) or any other addition document/drawings in .pdf format and Bill of Quantities in .xls format.
- ix. PUBLISHING OF TENDER: The Procurement Officer Publisher shall publish the tender using his/her DSC after detail scrutiny of the fields created and documents uploaded by the Procurement Officer Administrator. Procurement Officer Publisher can publish tenders for multiple procurement units using multiple DSCs procured for each post separately. After being relieved from the additional charges he has to surrender the additional DSCs to the Nodal Officer of the concerned organisation.

15. PARTICIPATION IN BID:

15.1. PORTAL REGISTRATION: The Contractor/Bidder intending to participate in the bid is required to register in the portal using his/her active personal/official e-mail ID as his/her Login ID and attach his/her valid Digital signature certificate (DSC) to his/her unique Login ID. He/ She has to submit the relevant information as asked for about the firm/contractor. The portal registration of the bidder/firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/documents such as (i) PAN and (ii) Registration Certificate (RC) / GST Registration Certificate (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC. Any change of information by the bidder is to be re-

authenticated by the State Procurement Cell. After successful authentication bidder can participate in the online bidding process.

15.1.1 Bidders participating through Joint Venture shall declare the authorised signatory through Memorandum of Understanding duly registered and enrol in the portal in the name and style of the Joint venture Company. It is mandatory that the DSC issued in the name of the authorised signatory is used in the portal.

15.1.2 Any third party/company/person under a service contract for operation of e-Procurement system in the State or his/their subsidiaries or their parent companies shall be ineligible to participate in the procurement process that are undertaken through the e-Procurement system irrespective of who operates the system.

15.2. LOGGING TO THE PORTAL: The Contractor/Bidder is required to type his/her *Login ID* and password. *The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication.* For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.

15.3. **DOWNLOADING OF BID:** The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.

15.4. **CLARIFICATION ON BID:** The bidder may ask question related to tender online in the e-procurement portal using his/her DSC; provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/Bid. The Officer Inviting the Bid / Procurement Officer-Publisher will clarify queries related to the tender.

15.5. PREPARATION OF BID

15.5.1. The bids may consist of general arrangements drawings or typical or any other drawings relevant to the work for which bid has been invited. Bidder may download these drawings and takeout print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the Officer Inviting The bid will be open for inspection by the bidders.

15.5.2. The Bidder shall go through the Bid carefully and list the documents those are asked for submission.

15.6. PAYMENT OF EMD/BID SECURITY AND COST OF BID DOCUMENTS:

15.6.1. cost of tender paper and EMD will be paid only through electronically payment system.

15.6.2. DELETED

15.6.3. DELETED

15.6.4. The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender. In the eventuality of failure on the part of the lowest successful bidder to produce the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority. In such a situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L1 bidder.

15.6.5. Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption

15.6.6. Government of Odisha has been actively considering integrating e-payment gateway in to the portal for payment of Cost of Bid and Bid Security/ Earnest Money Deposit. The process of using e-payment gateway shall be issued separately after it is established.

16. SUBMISSION OF BID:

16.1. The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid & a Financial Bid. The Technical bid generally consist of cost of tender paper and EMD/ Bid Security, GSTIN, PAN / TIN, Registration Certificate, Affidavits, List of similar nature of works, CA certificate with UDIN NO for last 05 financial years, No relationship certificate(as per format), No litigation certificate certificate(as per format), and any other information required by OIT. The Financial Bid shall consist of the Bill of Quantities (BOQ) and any other price related information/undertaking including rebates.

16.2. Bidders are to submit only the original BoQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration/ deletion / modification. Multiple BoQ submission by bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells without keeping it blank.

16.3. The bidder shall upload the scanned copy/copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.

16.4. The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the Officer Inviting Tender. The bidder shall type rates in figure only in the rate column of respective item(s) without any blank cell in the rate column in case of item rate tender .

16.5. The bidder shall log on to the portal with his/her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.

16.5.1. Bids cannot be submitted after due date and time. The bids once submitted cannot be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher/ opener before the due date and time of opening.

16.5.2. Each process in the e-procurement is time stamped and the system can detect the time of log in of each user including the Bidder.

16.5.3. The Bidder should ensure clarity/legibility of the document uploaded by him to the portal.

16.5.4. The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

16.5.5. The bidder should check the system generated confirmation statement on the status of the submission.

16.5.6. The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.

16.5.7. The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.

16.5.8. The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.

16.5.9. The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.

16.6. SIGNING OF BID: The 'online bidder' shall digitally sign on all statements, documents, certificates uploaded by him, owning responsibility for their correctness / authenticity as per IT ACT 2000. If any of the

information furnished by the bidder is found to be false / fabricated / bogus, his EMD/Bid Security shall stand forfeited & his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

17. SECURITY OF BID SUBMISSION:

17.1. All bid uploaded by the Bidder to the portal will be encrypted.

17.2. The encrypted Bid can only be decrypted / opened by the authorised openers on or after the due date and time.

18. RESUBMISSION AND WITHDRAWAL OF BIDS:

18.1. Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.

18.2. Resubmission of bid shall require uploading of all documents including price bid afresh.

18.3. If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.

18.4. The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.

18.5. The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the Procurement Officer Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.

19. OPENING OF THE BID:

19.1. Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids cannot be opened before the specified date & time.

19.2. All bid openers have to log-on to the portal to decrypt the bid submitted by the bidders.

19.3. The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.

19.4. In the event of the specified date of bid opening being declared a holiday for the Officer Inviting the Bid, the bids will be opened at the appointed time on the next working day.

19.5. Combined bid security for more than one work is not acceptable.

19.6. The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further, action on bid documents shall be taken by the new incumbent of the post.

19.7. In case of non-responsive tender, the officer inviting tender should complete the e-Procurement process by uploading the official letter for cancelled / re-tender.

20. EVALUATION OF BIDS:

20.1. All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that "the documents as available in the portal containing ____nos. of pages".

20.2. The bidder may be asked in writing/ online (in their registered e-mail ids) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The Officer Inviting Tender may ask for any other document of historical nature during Technical Evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the Bidder's price bid. Non-submission of legible documents may render the bid non-responsive. The authority inviting bid may reserve the right to accept any additional document. **No fresh document will be entertained for consideration after opening of the bid.**

20.3. The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.

20.4. The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.

20.5. The Procurement Officer-Evaluators; will evaluate bid and finalize list of responsive bidders.

20.6. The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.

20.6.1. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.

20.6.2. At the time of opening of "Financial Bid", bidders whose technical bids were found responsive will be opened.

20.6.3. The responsive bidders' name, bid prices, item wise rates, total amount of each item in case of item rate tender will be announced.

20.6.4. Procurement Officer-Openers shall sign on each page of the downloaded BOQ and the Comparative Statement and furnish a certificate to that respect.

20.6.5. Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

20.6.6. System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concern Chief Engineer / Head of Department.

21. NEGOTIATION OF BIDS:

21.1. For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.

22. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:

22.1. The Employer/EIC shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of Acceptance will state the sum that the EIC will pay the contractor in consideration of execution & completion of the Works by the contractor as prescribed by the contract & the amount of Performance Security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.

22.2. The Contractor after furnishing the required acceptable Performance Security & Additional Performance Security, "Letter to proceed" or "Work Order" shall be issued by the EIC with copy thereof to the Procurement Officer –Publisher. The Procurement Officer-Publisher shall up load the summary and declare the process as complete.

22.3. If the L-1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. Besides the consortium / JV / firm where such an agency / firm already happens to be or is going to be a partner/member/proprietor, he/ they shall neither be allowed for participation in bidding for three years nor his/ their application will be considered for registration and action will be initiated to blacklist him / them. In that case, the L-2 bidder, if fulfils other required criteria, would be called for drawing agreement for execution of work subject to condition that the L-2 bidder negotiates at par with the rate quoted by the L-1 bidder, otherwise the tender will be cancelled.

23. BLOCKING OF PORTAL REGISTRATION:

23.1. If the Registration Certificate of the Contractor is cancelled /suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.

23.2. The portal registration blocked in the ground mentioned in the above Para-23.1 shall be unblocked automatically in receipt of revocation order of cancellation / suspension/ blacklisting from the concerned authority.

23.3. The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech.) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.

23.3.1. Fails to furnish original Technical / Financial (Tender Paper Cost, EMD/Bid Security) instruments before the designated officer within the stipulated date and time.

23.3.2. Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.

23.3.3. Fails to execute the agreement within the stipulated date.

23.3.4. If any of the information furnished by the bidder is found to be false / fabricated / bogus.

Accordingly, the Officer Inviting Tender shall recommend to the Chief Manager (Tech.), State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix- XXXIV of OPWD Code, Volume-II.

24. GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION:

24.1. UNBLOCKING OF PORTAL REGISTRATION:

Unblocking of portal registration of a contractor shall be done by a Committee consisting of the following members.

EIC (Civil)-cum-CPO,	-	Chairman
Engineer-in-Chief (WR)	-	Member
Concerned Chief Engineer	-	Member
Sr. Manager (Finance), SPC	-	Member
Officer Inviting Tender	-	Member
Chief Manager (Technical), SPC	-	Convener

24.2. The Chief Manager (Tech), State Procurement Cell will be the convener and he will maintain all records for this purpose. The Committee shall meet not less than once in a month if required & shall consider the

recommendation of the officer inviting tender for unblocking of portal registration. The quorum of the meeting will be four.

24.3. The minimum period of blocking of Portal Registration shall in no case be less than 90 days. After blocking of Portal Registration, the Contractor whose Portal Registration has been blocked may file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury Challan showing deposit of Rs. 10,000/- (Rupees ten thousand) only (non-refundable) under the head of accounts '0059 - Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech), State Procurement Cell.

24.4. On receipt of recommendation from the concerned Chief Engineer along with the copy of challan as mentioned above, the Chief Manager (Tech) being the member Convener of the Committee shall place the case before the Committee for examination and taking a decision in this regard. After examination the Committee may recommend for unblocking of the portal registration of said contractor if the Committee is satisfied that the fault committed by the contractor is either unintentional or done for the first time.

24.5. After scrutiny by the State Procurement Cell if it is found that the portal registration of a contractor has been blocked for the 2nd time the Chief Manager (Tech), SPC may not consider his case to be placed before the Committee and may advise the concerned officer inviting tender to issue show cause notice to the contractor asking him to explain as to why his portal registration shall not remain blocked. On receipt of show cause reply from the contractor the officer inviting tender shall examine the same & if considered proper he may report to the Chief Manager (Tech), SPC along with his views furnishing the copy of the show cause reply for placement of the same before the Committee for taking a decision in respect of blocking/ unblocking. If the Committee found that the contractor is in habit of committing such fault again and again intentionally the committee may advise the concerned officer inviting tender to initiate proceeding for blacklisting as per the existing rule.

1. These amendments shall take effect from the date of issue of the order.
2. This amendment is an addition to the existing provision and will be placed below Appendix-IX to OPWD Col, Vol-II.
3. Accordingly, Office Memorandum No.1027 dt.24.01.2009 stands modified.
4. This has been concurred in by the Finance Department vide their UOR No.3-WF-1 dt.04.01.2013.

Sd/19.07.2013

E.I.C-cum-Secretary to Govt.

Letter of Acceptance
(Letterhead paper of the Employer)

_____ [date]

To :

_____ [name and address of the Contractor]

Dear Sir(s)

This is to notify you that your Bid dated for execution of the work “[.....]” on turnkey basis involving design and execution of works _____ [Name of the contract and identification number, as given in the Instructions to Bidders] for the Contract Price of Rupees _____ (Rs. _____) [amount in words and figures], as corrected and modified in accordance with the Instructions to Bidders¹ is hereby accepted by our Agency.

We note that as per bid, you do not intend to subcontract any component of work

(Or)

We note that as per bid, you propose to employ _____ as sub-contractor for executing _____.

(Delete which is not applicable)

You are hereby requested to furnish Performance Security and Additional Performance Security (if any) in the form detailed in Para 32.1 of ITB for an amount of Rs. _____ within 7 days of the receipt of this letter of acceptance and sign the contract failing which action as stated in Para 32.3 of ITB will be taken.

Yours faithfully,

Authorised Signature

Name and Title of Signatory

Name of Agency

1. Delete “corrected and” or “and modified” if only one of these actions applies. Delete “as corrected and modified in accordance with the Instructions to Bidders” if corrections or modifications have not been affected.

Issue of Notice to proceed with the work
(Letterhead of the Employer)

- ----- (Date)

To

_____ [Name and address of the Contractor]

Dear Sirs :

Pursuant to your furnishing the requisite security as stipulated in ITB clause 32.1 and signing of the contract for the work"[.....]" on turnkey basis involving design and execution of works@ a Bid Price of `....., you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorised to
sign on behalf of Employer)

Agreement Form

Agreement

This agreement, made the _____ day of _____ 20____ between _____ [name and address of Employer] (hereinafter called "the Employer") and _____ [name and address of contractor] (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that the Contractor "[insert name of the work], [name and identification number of Contract] (hereinafter called "the Works") and the Employer has accepted the Bid by the contractor for the execution & completion of such Works and the remedying of any defects therein, at a contract price of Rs _____

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement viz.
 - (i) Letter of Acceptance
 - (ii) Notice to proceed with the works;
 - (iii) Contractor's Bid
 - (iv) Conditions of Contract (including special condition of contract)
 - (v) Contract Data
 - (vi) Specification
 - (vii) Drawings
 - (viii) Bill of Quantities (optional)
 - (ix) Payment schedule and
 - (x) Any other documents listed in the Contract Data as forming part of the Contract.

In witness whereof, the parties thereto have caused this Agreement to be executed the day and year first before written.

The common seal of _____

Was hereunto affixed in the presence of:

Signed, sealed and delivered by the said _____

In the presence of:

Binding Signature of Employer _ _____

Binding Signature of Contractor _____

SECTION 3

CONDITIONS OF CONTRACT

CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1 Terms, which are defined in the Contract Data and not defined in the conditions of Contract shall keep their defined meanings. Capital initials are used to identify defined terms.

1.1.1 **Bill of Quantities** means the priced and completed Bill of Quantities;

1.1.2 Compensation events are those defined in clause 41 hereunder

1.1.3 The **Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 50.

1.1.4 The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

1.1.5 The **Contract Data** defines the documents and other information, which comprise the Contract.

1.1.6 The **Contractor** is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer.

1.1.7 The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.

1.1.8 The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

1.1.9 **Days** are calendar days; months are calendar months.

1.1.10 A **Defect** is any part of the Works not completed in accordance with the Contract.

1.1.11 The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.

1.1.12 The **Employer** is the party who will employ the Contractor to carry out the Works.

1.1.13 **The Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor's work, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, recommending extensions of time, and valuing the Compensation Events.

1.1.14 **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

1.1.15 **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

1.1.16 **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.

1.1.17 **Materials** are all supplies, including consumables, used by the contractor for incorporation in the Works.

1.1.18 **Plant** is any integral part of the Works, which is to have a mechanical, electrical, electronic or chemical or biological function.

1.1.19 The **Site** is the area defined as such in the Contract Data.

1.1.20 **Site Investigation Reports** are those, which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

1.1.21 **Specification** means the Specification of the works included in the Contract and any modification or addition made or approved by the Employer.

1.1.22 The **Start Date/Date of commencement** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

1.1.23 A **Subcontractor** is a person or corporate body who has a contract with the contractor to carry out a part of the work in the contract, which includes work on the site.

1.1.24 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor, which are needed for construction or installation of the Works.

1.1.25 A **Variation or change in scope** is an instruction given by the Employer, which varies the change in scope of works.

1.1.26 **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

1.1.27 **Year** may be understood as financial year.

2. Interpretation

2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Employer will provide instructions clarifying queries about the Conditions of Contract.

2.2 If sectional completion is specified in the contract data, references in the condition of contract to the works, the completion date and the intended completion date apply to any section of the works (other than references to the completion date and intended completion date for the whole of the works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

- (1) Agreement
- (2) Letter of Acceptance, notice to proceed with the works
- (3) Contractor's Bid
- (4) Contract Data
- (5) Conditions of Contract including Special Conditions of Contract
- (6) Specifications
- (7) Drawings
- (8) Bill of quantities (optional) and
- (9) Any other document listed in the Contract Data as forming part of the Contract.

3. Languages and Law

3.1. The language of the Contract and the law governing the Contract are stated in the Contract Data.

4. Engineer's Decisions

4.1. Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer as per the provision of the contract.

5. Delegation

5.1. The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the contractor.

6. Communications

6.1. Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7. DELETED

8. DELETED

9. Personnel

9.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data besides those as listed at section -8 to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive.

12. Contractor's Risks

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13. Insurance

13.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover for the period as stated below against the events and in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

A) From the starting date to the end of defect liability period

(a) Loss of or damage to the Works.

B) From the starting date till completion of the work as per agreement.

- (a) Loss of or damage to plant and materials and equipment;
- (b) Loss of or damage of property (except the works, plant, materials and equipment) in connection with the Contract; and
- (c) Personal injury or death.

- 13.2 If all the items listed in clause 13.1(B) can be combined/grouped under one insurance cover like contractors, All Risk (CAR) Policy, then the same is acceptable.
- 13.3 Prior to seven days before the start date, the contractor shall furnish to the Engineer notarized true copies of the certificates of insurance, copies of insurance policies and premia payment receipt in respect of such insurance for the Employer's approval. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 13.4 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 13.5 Alterations to the terms of insurance shall not be made without the approval of the Employer.
- 13.6 Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

- 14.1. The Contractor, in preparing the Bid, may rely on any site Investigation Reports referred to in the Contract Data, which are indicative and not exhaustive. The Employer shall provide all available details to the contractor (Bidder) for his information, if requested by him at least one week prior to the bid submission date. The bidder shall be responsible for interpreting all such data. After award of work the contractor shall carry out detail survey and investigation for preparation of detail design as per the scope of the work and time period stipulated at section 8.

To the extent which was practicable (taking account of cost and time) the contractor (Bidder) shall be deemed to have obtained all necessary information as to risk, contingencies and other circumstances which may influence or affect the tender or works. To the same extent, the contractor (Bidder) shall be deemed to have inspected and examined the site, its surroundings, the above data and other available information, and to have satisfied before submitting the tender as to all relevant matters, including (without limitation):

- (a) the form and nature of site, including subsurface condition,
- (b) the hydro geological and climatic conditions,
- (c) the extent and nature of the work and Goods necessary for the execution and completion of the works and the remedying of any defects,
- (d) the Laws, procedures and labour practices of the country, and
- (e) the contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services,
- (f) Availability of required materials.

14.2 Authority's right to take remedial measures

In the event the Contractor does not maintain and/or repair the Project Highway or any part thereof in conformity with the Operation & Maintenance Requirements, the Operation & Maintenance Manual or the Operation & Maintenance Program, as the case may be, and fails to commence remedial works within 15 (fifteen) days of receipt of the Operation & Maintenance Inspection Report, the Authority shall, without prejudice to its rights under this Agreement including Termination thereof, be entitled to undertake such remedial measures at the cost of the Contractor and to recover its cost from the Contractor. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Contractor to the Authority as Damages.

15. Queries about the Contract Data

15.1. The Employer will clarify queries on the Contract Data if any during the pre-bid meeting.

16. Contractor to Construct the Works

16.1. The Contractor shall construct and install the Works in accordance with the approved Specification and Drawings. All designs and drawings and specifications to be furnished by the contractor shall be approved by the Employer before execution in accordance with Clause 18.

16.2 The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or other resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government of the local authority. The contractor shall also abide by the requirements as per Attachment-X of the Bid document.

Salient features of some of the major laws that are applicable are given below:

- (1) The Water (prevention and Control of Pollution) Act, 1974**
- (2) The Air (prevention and Control of Pollution) Act, 1981**
- (3) The Environment (Protection) Act, 1986**
- (4) The public Liability Insurance Act, 1991**

17. The Works to be completed by the Intended Completion Date

17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

18. Approval by the Engineer

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

18.2 The Contractor shall be responsible for design of Temporary Works.

18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4 The Contractor shall obtain approval to the design, drawings and specifications of all components of the PWS work, except those for temporary works as stated at Clause 18.1, from approved institutions at its own cost. Such approved documents need to be submitted to the Employer within the stipulated datelines as mentioned in the contract data and at section -8.

18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Employer / Engineer before their use.

19. Safety

The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the contract data the employer is deemed to have delayed the start of the relevant activities and this will be compensation Event.

22. Access to the Site

The Contractor shall allow the Employer and any person authorized by the Employer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

23. Instructions

23.1 The Contractor shall carry out all instructions of the Engineer pertaining to works, which comply with the applicable laws where the Site is located.

23.2 The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

24. Disputes

24.1 That for the purpose of jurisdiction in the event of disputes if any of the contract would be deemed to have been entered in to within the state of Odisha and it is agreed that neither party to the contract will be competent to bring a suit in regard to the matter by this contract at any place outside the state of Odisha.

25. Procedure for settlement of Disputes/Arbitration

25.1 In case of dispute or difference arising between the Employer and contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996.

26. Replacement of Adjudicator:

Not applicable

B. TIME CONTROL

27. Programme

27.1 Within 14 days of issue of letter of award or the time stated in the Contract Data the successful bidder shall submit to the Employer detail work Programme showing the general methods, arrangements, order and timing for all the activities in the Works along with monthly cash flow forecast. The agreed work programme / milestones during such contract negotiation shall form a part of the agreement.

27.2 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

27.3 The contractor shall submit to the Employer, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an up dated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue programme has been submitted.

27.4 The Employer's approval of the Programme shall not alter the Contractor's obligations .The Contractor may revise the Programme and submit it to the Employer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

28 Extension of the Intended Completion Date

28.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the contractor to incur additional cost.

28.2. The Employer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a compensation event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28.3 The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended completion date refer to the Employer his recommendation. The Employer shall in not more than 21 days communicate to the Engineer the Employer's decision.

29. Delays Ordered by the Engineer

29.1. The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

30.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

30.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

31.1 The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the work delay in the execution. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Completion Date.

31.2 The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

C. QUALITY CONTROL

32. Identifying Defects

32.1. The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect

33. Tests

33.1. If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect the test shall be a compensation Event.

34. Correction of Defects

34.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

35. Uncorrected Defects

35.1. If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. COST CONTROL

36.Change in the Quantities: (Optional)

37.Change of scope (variation) and procedure for change of scope

37.1 The Employer may require the contractor to make modifications/ alterations to the construction work before the issue of completion certificate either by giving an instruction or by requesting the contractor to submit a proposal for change of scope involving additional cost or reduction in cost. Any such change of scope shall be made and valued in accordance with the provisions of this contract and the contractor, in that event, will have no further claim on the ground that had it been known/disclosed earlier he would have made such charges in other connected work in their design, construction which would have saved him some cost and given him other consequential benefits.

37.2 Change in scope may include:

(a) Change in specification of any item of works

(b) Omission/deletion of any item of work from the scope of work

(c) any additional work which are not included in the scope of work including any additional test on completion

37.3 In the event of the Employer determining that a change of scope is necessary, it shall issue notice to the contractor a notice specifying in reasonable detail the works contemplated t here under ("Change in scope notice")

37.4 Upon receipt of change in scope notice, the contractor shall with due diligence, provide to the Employer through the Engineer within seven days time such information as as is necessary together with documentation in support of;

(a) the impact, of any, which the change in scope is likely to have on the completion of the work

(b) the options for implementing the proposed change of scope and the effect, if any, each on the cost and time thereof including the following details;

(i) break down of quantities, unit rates and cost for different items of work

(ii) proposed design for the change of scope

(iii) proposed modifications, if any, to the construction period with updated work programmes (all variations shall be included in updated programme produced by the contractor)

37.5 The contractor's quotation for change of scope shall be based on the detail design and rates for various items of works as derived on the basis of his original bid price (in case of repetition of similar item as per original contract) or PH specification and prevailing market rates (in case of new item not envisaged in the original contract)

37.6 The value of all change of scope of work shall not exceed 5% of the total contract price for the construction work.

38. Payments for change of scope (Variations)

38.1 The Employer shall assess the change in scope proposal and contractor's quotation and upon reaching an agreement; the Employer shall issue the change scope order requiring the contractor to proceed with the performance thereof.

38.2 If the contractor's quotation is unreasonable, the Employer may order the variation and make a change to the contract price which shall be based on Employer's own forecast of the effects of the variation on the contractor's cost.

38.3 If the Employer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the variation shall be treated as a compensation event, subject to condition that such variation shall not exceed 5% of the total contract price for the contract work.

38.4 The contractor shall not be entitled to additional payment for cost, which could have been avoided by giving early warning.

39 Payment certificates

39.1 The contractor shall submit to the Engineer statements of the value of the work completed.

39.2 The Engineer shall check the contractor's statement within 14 days and certify the amount to be paid to the contractor as per contract payment schedule after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under condition set forth in sub-clause 47.3 of the contract data (secured advance).

39.3 The value of work executed shall be determined by the Engineer.

39.4 The value of work executed shall comprise the value of the quantities of the items as per the mile stone and work programme attached to the Clause-8 of Contract Data. The milestone and work programme shall incorporate by the TIA as per nature of work.

39.5 The value of work executed shall include the variation of change in scope (variation) and compensation events, if any.

39.6 The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40 Payments

Payments shall be adjusted for deductions for retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts as per the payment schedule attached to the contract.

41 Compensation Event

41.1 The following are the compensation events unless they are caused by the contractor:

(a) The Employer does not give access to a part of the site by the site Possession date stated in the contract data.

(b) Other contractors, public authorities of utilities or the employer does not work within the dates and other constraints stated in the contract, and they cause delay or extra cost to the contractor.

41.2 If a compensation Event would prevent the work being completed before the intended completion date, the Intended completion date shall be extended. The contractor will react competently and promptly to the event and shall submit information demonstrating the effect of the compensation Event and the required extended time period for completion.

41.3 The Engineer shall examine the information furnished by the contractor and shall recommend to the Employer by how much time the Intended completion date shall be extended. The Employer shall decide / sanction the required extension of time due to such compensation event.

41.4 The contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the contractor not having given early warning or not having cooperated with the Engineer.

42. Tax

The rates quoted by the Contractor shall be deemed to be inclusive of all taxes, duties & levies, Income tax, Labour Cess applicable as per Government rules prevailing at the time of bidding that the contractor will have to pay for the performance of this contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

43 Currencies

All payments shall be made in Indian Rupees.

44. Retention

44.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works or settlement of final payment.

44.2 On Completion of the whole of the Works, half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

45. Liquidated Damages

45.1. The Contractor shall pay liquidated damages to the Employer at the rate per week stated in the Contract Data for each week that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not relieve the contractor from his/her/their obligation to complete the works or from any other duties, obligation or responsibilities which he/she/they may have under the contract.

45.2.If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment *of* liquidated damages by the Contractor by adjusting the next payment certificate.

45.3.If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for every week or part of week which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works or the mile stone, subject to the limit stated in the contract data.

The employer may, without prejudice to any other method *of* recovery deduct the amount *of* such damages from any money due or to become due to the contractor. The payment or deduction of 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.

45.4.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 liquidated damages 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 liquidated damages and shall not affect the limit thereof.

46 Bonus Payments

46.1 The procedure for payment of bonus (incentive) shall be as per the latest amendment to Para 3.5.5 of OPWD code Vol. - I.

46.2 If the contractor achieves completion of the whole of the works prior to the Intended completion date prescribed in the contract data the Employer shall pay to the contractor a sum stated in the contract data as bonus (incentive) for every completed month which shall elapse between the date of completion of all items of works as stipulated in the contract and the time prescribed in clause 17

46.3 For the purpose of calculating bonus payment, the time given in the Bid for completion of the whole of the works is fixed and unless otherwise agreed, no adjustments of the time by reason of granting of extension of time pursuant to clause no 28 or any other clause of these conditions will be allowed. Any period falling short of a complete month shall be ignored for the purpose of computing the period relevant for the payment of bonus.

47 DELETED

48 Securities

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The Performance Security shall be valid up to the end of Defects Liability Period.

49 Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions including the situation as stipulated at clause 12.

E. FINISHING THE CONTRACT

50. Completion

The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

51. Taking Over

The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

52. Final Account

52.1. The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Employer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

53. Operating and Maintenance Manuals

If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data

or

If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Employer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

54. Termination

54.1. The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

54.2. Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- (b) the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (d) the Contractor does not maintain a security which is required;
- (e) the Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and

- (f) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official 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."

54.3 When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 54.2 above, the Engineer shall decide whether the breach is fundamental or not.

54.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

54.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site, as soon as reasonably possible.

55. Payment upon Termination

55.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

55.2. If the Contract is terminated at the Employer's convenience the Engineer shall issue a certificate for the value of the work done, less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law. No extra cost will be paid by the Employer for expenditure towards removal of Equipments, repatriation of the contractor's personnel employed solely on the works and the contractor's cost of protecting and securing the works.

56. Property

56.1. All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

57. Release from Performance

57.1. If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

58.1. 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.

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 other information as the Engineer may require.

58.2. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non- observance of the provisions stipulated in the notifications/bye laws/ Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

59. SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) Workmen Compensation Act 1923 :- The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) Payment of Gratuity Act 1972 :- Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death, the rate of 15 days wages for every completed year of service. The Act is applicable to, all establishments employing 10 or more employees.
- c) Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.
- d) Maternity Benefit Act 1951 :- The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

- e) Contract Labour (Regulation & Abolition) Act 1970 :- The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor required taking license from the designated officer. The Act is applicable to the establishments or Contractor of Principal Employer, if they employ 20 or more contract labour.
- f) Minimum Wages Act 1948:- The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act, if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- g) Payment of Wages Act 1936:- It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) Equal Remuneration Act 1979 : - The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965:- The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above up to Rs.3500/- per month shall be worked out by taking wages as Rs.2500/ per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) Industrial Disputes Act 1947:- The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) Industrial Employment Standing Orders Act 1946:- It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.
- l) Trade Union Act 1926: - The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labour (Prohibition & Regulation Act 1986): - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) Inter-State Migrant workmen's Regulation of Employment & Conditions of service Act 1979 :-

The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.

- o) The Building and Other Construction workers Regulation of Employment and Conditions of Service Act 1996 and the Cess Act of 1996 :- All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may

be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

p) Factories Act 1948:- The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable 'to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

G. Additional Special Condition

- 60.1 The contractor is to approve all structural design by State Technical Agency at his own cost (IGIT Sarang, CET Bhubaneswar, VSS UI Burla, NIT Rourkela, and IIT, Bhubaneswar).
- 60.2 All materials required for completion and commissioning of the awarded work are to be procured by the contractor.
- 60.3 For all materials the contractor shall have to furnish manufacturer's test certificates.
- 60.4 For all materials which come under EPM rate contract the contractor shall have to furnish CIPET inspection report.
- 60.5 Inspection by the Engineers/Employer of the Department shall not relieve the contractor of his liability for rectifying the defect which may subsequently appear or be detected during testing and commissioning or subsequent operation. After rectification of the defects or replacement, the materials shall be re-tested to the satisfaction of the Engineers/Employer.
- 60.5 All equipments, labour, tools & plants, instruments and other facilities for testing shall be provided by the contractor. He shall also maintain all records of the entire test and furnish the copies of the same to the Department.
- 60.6 The Department reserves the right to test any materials at any reputed laboratories if necessity arises and the cost of which test(s) shall be borne by the contractor and rejected materials shall have to be replaced by the contractor by approved materials at his own cost.
- 60.7 The contractor shall be responsible for safe custody of the materials at site and the Department will not be responsible for any damage or loss of the property at site.
- 60.8 All the pipe line (Rising main & distribution) will be laid underground as per the specification. Where it is not possible then decision is to be taken with VWSC/PRI, and Engineer in charge for lying of pipe line above the ground with adequate protection to the pipe line.
- 60.9 Payment to the Contractor will be released as per the break up schedule mentioned in Addendum to special condition of contract & Clause E-1 of Section-8.
- 60.10 All the security deposit and maintenance cost will be released to the Contractor by the Executive Engineer, RWS&S only after recommendation of Junior Engineer, RWSS and Assistant Engineer, RWS&S.
- 60.11 The contractor can execute the construction of individual house hold toilet in the project area with the help of division for which payment will be made to him by division as per the NBA guideline.
- 60.12 Before execution of work the source of the PWS scheme will be handed over to the contractor by the Employer for his safe custody.
- 60.13 The payment will be made as per the measurement on actual consumption of materials and the work executed against the items provided in the sanctioned estimate.
- 60.14 The variation of payment due to above will be guided by the rates in the sanctioned estimate.
- 60.15 DELETED
- 60.16 MOU shall be developed and agreed by Executive Engineer, BDO of PR Department and the contractor for maintenance of the PWS project for five years.
- 60.17 The contractor shall quote rates for the maintenance separately in the bidding documents.

60.18 The contractor shall deposit the amount quoted for maintenance/ O&M period in shape of five nos. of NSC as per payment schedule mentioned in clause B of Addendum to special condition of contract duly pledged in favour of the EE before the payment of final bill of the work or the same/ deficit amount shall be deducted from his final bill which shall be released in addition to the payment within 60 days after successful completion of maintenance/ O&M period at the end of every year till fifth year. In case the contractor desires, all types of securities available against the aforesaid work with the division can be converted to security against maintenance/ O&M of the said work, which shall be accepted and the deficit amount, if any, shall be deducted from his final bill. The security towards O&M shall be released within 60 days after completion of five years O&M period.

60.19 Agency to provide following documents within 15 days of signing of agreement.

1. Manpower details:

- a. Name
- b. Qualification
- c. position/Designation

2. Water supply schedule of all villages

H. Important General Conditions of Contract.

61.

61.1 Decision of Executive Engineer is Final:

The party whose tender is accepted hereinafter called the contractor is to provide everything of every sort and kind (with the exceptions noted in the schedule attached) which may be necessary and requisite for the due and proper execution of the several works included in the contract according to the true intent and meaning of the drawings and specification taken together, which are to be signed by the **Superintending Engineer, RWSS. Division, Nuapada** herein after called the Executive Engineer and the contractor whether the same may or may not be particularly described in the specification or shown on the drawing provided that the same are reasonably and obviously to be inferred there from and in case of any discrepancy between the drawings and the specifications the Executive Engineer is to decide which shall be followed.

61.2 Amendment of Errors during Progress of Work:

The contractor is to set out the whole of the works in conjunction with an officer to be deputed by the Executive Engineer and during the progress of the works to amend on the requisition of the Executive Engineer any errors which may arise therein and provide all the necessary labour and materials for doing. The contractor is to provide all plant labour and materials (with the exception noted in Schedule), which may be necessary and requisite for the works. All materials and workmanship are to be the best of their respective kinds. The contractor is to leave the works in all respects clean and perfect at the completion thereof.

61.3. Approved Drawings & Specification of Site with Contractors Agent:

Complete copies of the drawing and specifications signed by the Executive Engineer and the same or copies thereof are to be kept with the works in-charge of the contractor's agent which is to be constantly kept on the ground by the contractor and to whom instructions can be given by the Executive Engineer.

61.4. Deviation from Approved Drawing and Specifications:

The contractor is not to vary or deviate from the drawings or specifications or execute any extra work of any kind whatsoever unless upon the authority of the Executive Engineer to be sufficiently shown by any order in writing, by any plan or drawing expressly given and signed by him as an extra or variation or by any subsequent written approval signed by him. In case of daily labour all vouchers for the same are to be delivered to the Executive Engineer or the Officer-in-Charge at least during the week following that in which the work may have been done and no day work shall be allowed unless authorised by the Executive Engineer and no such authority shall be given if the work is capable of being measured and being paid for at an agreed rate.

61.5. Rate for Extra Work.

Any authority given by the Executive Engineer, for any alterations or additions in or to the works, is not to vitiate contract. But all additions, omissions or variations made in carrying out the works are to be measured and valued and certified by the Executive Engineer and added to or deducted from the amount of the contract as the case may be. For new items the same shall be paid at the rates, in accordance with the sanctioned schedule of rates, in force at the time, when the particular item of work was commenced. In those cases, in which rates do not exist, the **EIC (insert competent authority)**, will fix the rates to be paid and his decision shall be final.

61.6. Extension of Time:

If the contractor shall desire an extension of time for completion of the work on the ground of his having been come across with unavoidable hindrance in its execution or any other grounds he shall apply in writing to Executive Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the authority shall if in his opinion (which shall be final) as reasonable ground be shown thereof authorized such extension of time if any, as may in his opinion, be necessary or proper. The authority shall at the same time inform the contractor whether the authority claims compensation for delay, in case there is any delay in execution due to non-availability of stock materials or land or rise in cost of materials and labour or any reason whatsoever beyond the control of authority, the contractor is bound to execute the work as per the terms and rates in the contract and no monetary claim on such account will be acceptable to the authority but extension of time, proportionate to the delay in execution may be granted by the authority considering the merit of the case. The competent authority reserves the right to take any expert advice of any Committee/ Secretary/ Legal Advisor while considering the application of the contractor for extension of time and can impose any condition which shall be binding on the contractor.

61.7. Supply of Materials:

The contractor shall at his own expense provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest editions of the specification and codes of practices of the Bureau of Indian Standards or in their absence to other specifications as may be specified by the EIC. The contractor shall furnish necessary certificates in support of the quality of the materials as may be required by the EIC.

The EIC shall have absolute authority to test the quality of materials at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The Executive Engineer has full power for removal from the premises of all materials which, in his opinion, are not in accordance with the specification and in case of default, the Executive Engineer is to be at liberty to sell such materials and to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Executive Engineer is also to have full power to require other proper materials to be substituted and in case of default, the Executive Engineer may cause the same to be supplied and all costs which may attend such removal and substitution are to be borne by the contractor and may be recovered from the sale proceeds of such rejected materials when necessary, the balance, if any, being kept in deposit in the contractor's favour.

61.7.1 The successful bidder is to purchase materials necessary for execution of work contract from local SSI units & MS Enterprises having valid rate contract & ISI mark.

61.8. Execution with Defective Workmanship & Improper Materials.

If in the opinion of the Executive Engineer any of the works have been executed with improper materials or defective workmanship, the contractor is then required by the Executive Engineer forthwith to re-execute the same and to substitute proper materials and workmanship and in case of default of the contractor in so doing within a week, the Executive Engineer is to have full power to employ other agency to re-execute the work and the cost thereof shall be borne by the contractor.

61.9. Rectification of Defects within Guarantee Period:

Any defects, shrinkage or other faults which may appear within 12 (twelve) months from the completion of the work arising out of defective or improper materials or workmanship are upon the direction of the Executive Engineer to be amended and made good by the contractor at his own cost unless the Executive Engineer for reasons to be recorded in writing shall decide that they ought to be paid for and in case of default, the Governor of Odisha may recover from the contractor the cost of making good the works.

61.10. Responsibility of the Contractor during Execution of Work:

From the commencement of the works to the completion of the same they are to be under the contractor's charge. The contractor is to be held responsible for and to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire or other causes and they are to hold the Governor of Odisha harmless from any claims for injuries to persons or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or of any one of his employees during the execution of the works.

61.11. Execution of Works in the Site by Other Workmen:

The Executive Engineer is to have full powers to send workmen upon the premises to execute fittings and other works not included in the contract for whose operations the contractor is to afford every reasonable facility during ordinary working hours provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works.

61.12. Compensation for Delay:

(a) The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the written order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract, be carried on with all due diligence (time being deemed to be essence of the contract on the part of the contractor) and the contractor shall pay, as compensation, an amount equal to $\frac{1}{2}$ percent of the amount of the estimated cost, if the whole work as shown by the tender for every day that the work remains un-commenced, or un-finished after the proper dates (The work should not be considered finished until such date as the Executive Engineer shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by the Executive Engineer or his authorised agents, are fully complied with by the contractor to the Executive Engineer's satisfaction). And further to ensure good progress during the execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete one-fourth of the whole of the work before one fourth of the whole time allowed under the contract has elapsed, one half of the work, before the half of such time has elapsed, and three fourth of work before three fourths of such time has elapsed, in the event of the contractor failing to comply with the condition he shall be liable to pay as compensation an amount equal to one-third percent on the said estimated cost of the whole work for every day that the due quantity of work remains incomplete. Provided that the entire amount of compensation to be paid under the provision of this clause shall not exceed 10%(Ten Percent) of the estimated cost of the work as shown in the tender.

(b) If there are possibilities of exceeding this compensation amount as mentioned in clause (a) 10% of the estimated cost, or in any case in which under any clause or clauses of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit in the hands of Government (whether paid in the sum or deducted by instalments) the Executive Engineer on behalf of the Governor of Odisha, shall have power to adopt any of the following courses, as he may deem best suited to the interest of the Government.

- i) To rescind the contract (of which recession notice in writing to the contractor under the hand of the Executive Engineer shall be conclusive evidence) 20% of the value of the left over work will be realized from the contractor as penalty.
- ii) To employ labour paid by Deptt. of Water Resources and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (of the amount of which the cost and price certificate of the Executive Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respect in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract; the certificate of the Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.
- iii) To measure up the work of the contractor and to take such part of the work of the contract, as shall be unexecuted out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or otherwise or from his security deposit or the proceeds of sale thereof or a sufficient part thereof.

In the event of any of the above courses being adopted by the Executive Engineer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work there to for actually performed under this contract, unless and until the Executive Engineer shall have 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.

61.13. Circumstances for Rescission of Contract:

If the contractor shall become bankrupt or compound with or make any assignment for the benefit of his creditors or shall suspend or delay the performance of his part of the contract (except on account of cause mentioned in **Clause 61.12** or in consequence of not having proper instructions for which the contractor shall have duly applied) the Executive Engineer may give to the contractor or his assignee or trustee as the case may be notice requiring the works to be proceeded with and in case of default on the part of the contractor for a period of seven days, it shall be lawful for the Executive Engineer to rescind the contract, if necessary, and to enter upon and take possession of the work and to employ any other person to carry on and complete the same and to authorise him or them to use the plant, materials and property of the contractor upon the works and the costs and the charge incurred in any way in carrying on and completing the said works are to be paid to the Executive Engineer by the contractor or may be set off by the Executive Engineer against any money due or to become due to contractor. If the assignee or trustee of the Contractor proceeds with the work, the conditions of this contract shall be binding upon the said assignee or trustee.

61.14. Clause 31 :- Price Adjustment (Vide Works Deptt. Office Memorandum No.15847/W dt.19.11.2019)

31.1 : Contract Price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per the given following Paras.

- a) The prices adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date or extension granted by the Engineer and shall not apply to the work carrier out beyond the stipulated time for reasons attributable to the contractor.

- b) The price adjustment shall be determined during each month from the formula given in following Paras.
- c) Following expressions and meaning are assigned to the work done during each month:
 $R =$ Total value of work done during the month, it would include the amount of secured advance granted, if any, during the month, less the amount of secure advance recovered, if any during the month, it will exclude value for works executed for extra items under variations.

31.2 : To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs

The formula (e) for adjustment of prices are:

31(a) (i): Adjustment of Other Materials Component

Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen, pipe and POL procured by the contractor shall be paid in accordance with the following formula

$$V_m = 0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$$

V_m = increase or decrease in the cost of work during the month under consideration due to the changes in rates for local materials other than cement, steel, bitumen and POL

M_0 = The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

M_1 = The all India wholesale price index (all commodities) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_m = Percentage of local materials component (other than cement, steel, bitumen and POL) of the work.

31(a)(ii): Adjustment for Cement Component

Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid accordance with the following formula.

$$V_c = 0.85 \times P_c / 100 \times R \times (C_1 - C_0) / C_0$$

V_c = Increase or decrease of the cost of work during the month under consideration due to change in the rates for cement.

C_0 = The all India wholesale price index Ordinary Portland Cement (OPC) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

C_1 = The all India wholesale price index Ordinary Portland Cement (OPC) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_c = Percentage of Cement Component of the work

31(a)(iii): Adjustment for Steel Component

Price adjustment for increase or decrease in the cost of Steel procured by the contractor shall be paid accordance with the following formula.

$$V_s = 0.85 \times P_s / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease of the cost of work during the month under consideration due to change in the rates for Steel.

S_0 = The all India wholesale price index for Steel (Mild Steel long products) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

S_1 = The all India wholesale price index for Steel (Mild Steel long products) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_s = Percentage of Steel Component of the work

Note: For the application of this clause, index of (Mild Steel long Products) has been chosen to represent steel group.

31(a)(iv): Adjustment of Bitumen Component

Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula.

$$V_b = 0.85 \times P_b / 100 \times R \times (B_1 - B_0) / B_0$$

V_b = Increase or decrease of the cost of work during the month under consideration due to change in the rates of bitumen

B_0 = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest center on the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of Bitumen Component of the work

31(a)(v): Adjustment towards differential cost of Pipes

Price adjustment for increase or decrease in the cost of pipe shall be paid in accordance with the following formula.

$$V_{pi} = 0.85 \times P_{pi} / 100 \times R \times (P_{i1} - P_{io}) / P_{io}$$

V_{pi} = Differential cost of pipe i.e. amount of increase or decrease in rupees to be paid or recovered during the month under consideration.

P_{pi} = Percentage of Pipe Component of the work

P_{i1} = All India wholesale price index of pipe for the period under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_{io} = All India wholesale price index of pipe on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

31(b): Adjustment of Labour Component

(v) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula.

$$V_L = 0.85 \times P_L / 100 \times R \times (L_1 - L_0) / L_0$$

V_L = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.

L_0 = The minimum wages for unskilled labour as Notified by Government of Odisha as Prevailed on the last stipulated date of receipt of tender including extension, if any.

L_1 = The minimum wages for unskilled labour as Notified by Government of Odisha as Prevailed on the last date of the Month previous to the one under consideration.

P_L = Percentage of labour Component of the work

31(c): Adjustment of POL (fuel and lubricant) Component

Price adjustment for increase or decrease in the cost POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f / 100 \times R \times (F_1 - F_0) / F_0$$

V_f = Increase or decrease in the cost of work during the month under consideration due to change in the rates for fuel and lubricants.

F_0 = The official retail price of High-Speed Diesel (HSD) at the existing consumer pumps of IOC / BPCL / HPCL at nearest center on the day 28 days prior to the date of opening of Bids.

F_1 = The official retail price of HSD at the existing consumer pumps of IOC / BPCL / HPCL at nearest center for the 15th day of the month under consideration.

P_f = Percentage of fuel and lubricants Component of the work

Note: for the application of this clause, the price of High-Speed Diesel oil has been chosen to represent fuel and lubricants group.

31(d): Adjustment for Plant and Machinery Spares Component

(vi) Price adjustment for increase or decrease in cost of plant and machinery spares procured by the contractor shall be paid in accordance with the following formula:

$$V_p = 0.85 \times P_p / 100 \times R \times (P_1 - P_0) / P_0$$

V_p = increase or decrease in the cost of work during the month under consideration due to the changes in rates for plant and machinery spares

P_0 = The all India wholesale price for manufacture of machinery for mining, quarrying and construction on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_1 = The all India wholesale price index manufacture of machinery for mining, quarrying and construction for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_p = Percentage of plant and machinery spares component of the work.

Note: For the application of this clause, index of manufacturing of machinery forming, quarrying and construction has been chosen to represent the plant and machinery Spares group.

Regarding wholesale price index (WPI) for appropriate commodity for payment of price adjustment, due to change of base year of WPI from 1993-94 to 2004-05 & 2011-12. It is observed that, the commodity 'Bars and Rod' Cement 'Heavy machinery and parts' include in the list of WPI 1993-94 series are not mentioned as such in the WPI 2004-05 & 2011-12 series therefor the following items in the WPI 2004-05 & 2011-12 series shall be considered corresponding to items in WPI 1993-94 series:

SI NO.	Item in WPI 1993-94 series	Item in WPI 2004-05 series	Item in WPI 2011-12 series
1	Cement	Grey Cement	Ordinary Port land Cement
2	Bars & Rods	Rebars	Mild Steel long Products
3	Heavy Machinery & parts	Construction Machinery	Manufacture of machinery for mining quarrying & construction.

31(e): APPLICATION OF ESCALATION CLAUSE:

The contractor shall for the purpose of availing reimbursement/refund of different cost of steel, bitumen, cement, pipe, POL and wages keep such books of account another documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further shall at the request of the Engineer-in-charge furnish documents to be verified in such a manner as the Engineer-in-charge may require any document and information kept. The contractor shall within a reasonable time of 15 days of the becoming aware of any alternation in the price of such material, wages of labour and /or price of P.O.L. give notice thereof to the Engineer-in-charge stating that the same is given pursuant to this condition along with information relating to there to which he may be in a position to supply.

Percentage Table

SI NO.	Category of works	% Component (cost wise)		
		Labour (P _l)	POL (P _i)	Steel (P _s) + Cement (P _c) + Bitumen (P _b) + Pipes (P _{pl}) + Plants & machinery Spare & Component

					(Pr)+ Other Materials *
1	R &B works (% of component)	Road Works	5	5	90
		Bridge Works	5	5	90
		Building Works	5	5	90
2	Irrigation works (% of Component)	Structure work	5	5	90
		Earth, Canal & Embankment work	5	5	90
3	P.H. Work	Structural work	5	5	90
		Pipeline Work	5	5	Pipe-70% Machinery + Other materials - 20%
		Sewer Line	5	5	Pipe-70% Machinery + Other materials -20%

*Note: Further break up may be worked out considering the consumption of Cement, Steel, Bitumen, Pipe and plant & machinery Spare Component in the concerned works and shall be provide in the bid document in shape of “**Schedule of Adjustment Data**” as an “**Appendix to Bid**”. (enclosed herewith)

Appendix to Bid **Schedule of Adjustment Data**

[For all works, adjustment factor for labour and POL shall be considered @ 5% each Steel, Cement, Pipes, Other Materials and Machinery shall contribute to 90% of price Adjustment and shall be calculated for each work separately during preparation of estimate, shall be approved by the authority during technical sanction as a “Schedule of Adjustment Data “and shall form part of the Bid Document]

CI. NO- 31 of F2/P1 Contracts SLNO.	Index Description	Source of Index	Base Value*	Base Data*	Weightage Item**
31 (a) (i)	Other materials	All India wholesale price Index (all commodities) as published by the Govt. of India, Ministry of Commerce and Industry.			
31 (a)(ii)	Cement	Wholesale price Index for cement (Ordinary Portland Cement) as published by the office Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
31 (a)(iii)	Steel	Wholesale price Index for Steel (Mild Steel-Long Products) as published by the office Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
31 (a)(iv)	Bitumen (VG-30)	Official retail price of bulk bitumen at the nearest IOC/HPCL depot			
31 (a)(v)	Pipes	Wholesale price Index for types of pipe under consideration as published by the office Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
31 (b)	Labour	Minimum Wage notified by the Labour and Employee's State Insurance Department of Government of Odisha, India			5%
31 (c)	POL	Officials retail price of HSD at nearest IOCL/HPCL/BPCL Consumer pump			5%

		depot.			
31 (d)	Plant and Machinery	Wholesale price Index for Manufacture of Machinery for Mining Quarrying and Construction as published by the office Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
			Total		100%

*Values to be filled up at the time of drawl of contract

**Values to be filled up in the bid document

The following percentage breakup shall be followed towards price adjustment.

<u>Component</u>	<u>Item</u>	
	<u>Water Supply works</u>	
	<u>Pipeline work</u>	<u>Structural works</u>
Labour (PL)	<u>5%</u>	<u>5%</u>
Cement (PC)	<u>Nil</u>	<u>20%</u>
Steel (PS)	<u>Nil</u>	<u>20%</u>
Bitumen (PB)	<u>Nil</u>	<u>Nil</u>
Pipe (PP)	<u>70%</u>	<u>Nil</u>
Fuel and lubricants (PF)	<u>5%</u>	<u>5%</u>
Other Materials (PM)	<u>20%</u>	<u>30%</u>
Plant, machinery and spares (PA)	<u>Nil</u>	<u>20%</u>
<u>Total</u>	<u>100 %</u>	<u>100 %</u>

61.15. Defects Liability Period:

The defect liability is **12 months** from the date of formal taking over of the work by the EIC.

61.16. Contractor Liable for Damage done & for Imperfection for 12 (twelve) months after Certificate:

If the contractor or his work people or servants shall break, deface, injure or destroy any part of a building or structure in which they may be working or any building, road, fence, enclosure or grass land cultivated ground continue to the premises on which the work or any part of it is being executed or in any damage shall happen to the work while in progress from any cause whatsoever or any imperfection become apparent in it within six months from the date of the final certificate of its completion shall have been given by the EIC, as aforesaid, the contractor shall make the same good at his own expenses or in default the EIC may cause the same to be made good by other workman and deduct the expenses of which the certificate of the EIC shall be final from any sums that may be then or at any time thereafter may become due to the contractor or from his security or the proceeds of sale thereof or a sufficient portion thereof and the contractor shall be liable to pay of the expenses not so recovered by the EIC.

61.17. Action where No Specification is mentioned:

In the case of any class or items of works for which there is no such specification as mentioned in file, if such work shall be carried out in accordance with the detailed standard specification of Odisha, as followed by the State PWD and in the event of there being no specifications born in the said standard specification of Odisha for such items of work, then in such case the said item of work shall be carried out in all respects in accordance with the instructions and requirements of the EIC after obtaining approval from competent authority.

61.18. Black Listing:

A Contractor may be black listed as per amendment made to Appendix XXXIV to OPWD Code Vol.-II on rules for black listing of Contractors vide letter No.3365 Dt.01.03.2007 of Works Department, Odisha. As per said amendment a Contractor may be blacklisted.

- a) Misbehavior/threatening of Departmental & supervisory officers during execution of work/tendering process.
- b) Involvement in any sort of tender fixing.
- c) Constant non-achievement of milestones on insufficient and imaginary grounds and non-adherence to quality specifications despite being pointed out.
- d) Persistent and intentional violation of important conditions of contract.
- e) Security consideration of the State i.e., any action that jeopardizes the security of the State.
- f) Submission of false/ fabricated / forged documents for consideration of a tender.

61.19. DELETED

61.20 If L₁ bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. In that case, the L₂ bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to the condition that L₂ bidder negotiates at par with the rate quoted by the L₁ bidder otherwise the tender will be cancelled. In case a contractor is black listed, it will be widely published and intimated to all Departments of Government and also to Government of India agencies working in the State.

(As included in Para 3.5.14 Note-I of OPWD Code Vol. I vide Works Department letter No.12366/W dt.18.11.2013).

61.21 Before acceptance of tender, the successful bidder will be required to submit a work programme and milestone basing on the financial achievement so as to complete the work within the stipulated time and in case of failure on the part of the agency to achieve the milestone liquidated damaged will be imposed.

(As included in Para 3.5.18 Note-VIII of OPWD Code Vol. I vide Works Department letter No.12366/W dt.18.11.2013).

61.22. Rates:

The Tenderer shall quote their offer on '**Lump Sum Rate**' for the complete work in all respects. The offer shall be inclusive of cost of all materials, labour, T&P inclusive of IGST/OGST including the building and other construction workers welfare cess with surcharge, tollages, royalties, packing and forwarding, transportation, insurance, loading & unloading, storage, watch and ward, delivery of the materials to the site etc. and all other expenses incidental thereto for successful completion, testing & commissioning of the work.

N.B: The Excise Duty exemption, if any, is as par with the present Government rules prescribed by Central Excise Department after implementation of GST. The contractor shall arrive their rates for pipe materials accordingly.

61.23 Guarantee:

Defect liability period is **12 (twelve) months** from the date of final acceptance of the work conforming to provisions in scope of work. During this period, the contractor shall replace the defective materials if any or rectify the defects if any at his own cost as pointed out by the EIC to the satisfaction of the later.

61.24. Rescission of Contract:

Subject to other provisions contained in this clause the Executive Engineer of the Department 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, recommend the accepting authority to rescind the contract in any of the following cases:

- i) If the **contractor** having been given by the Executive Engineer 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-workmen like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.

- ii) If the contractor being a company shall pass a resolution on 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 to court to make a winding up order.
- iii) If the contractor has, without reasonable cause, suspended the progress of the work with due diligence so that in the opinion of the Executive Engineer (which shall be final & binding) he will be unable to secure completion of the work by the date of completion and continues to do so after a notice in writing of seven days from the Executive Engineer.
- iv) If the contractor fails to comply with the provisions of **Clauses** & other relevant clauses mentioned elsewhere in this DTCN.
- v) If the contractor fails to complete the work within the stipulated date or items of the work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Executive Engineer. When the contractor has made himself liable for action under any of the cases aforesaid, the **accepting authority** shall have the powers to rescind the contract (of which rescission notice in writing to the contractor under the hand of Executive Engineer shall be conclusive evidence), **20% of the value of the left-over work** will be realized from the contractor as Penalty

61.24.1. In case of rescission of contract as per **Clause-61.24** the contractor shall have no claim to compensation for any loss sustained by him by regions of having purchased or procured any materials or entered any engagement on account of or with a view to execute the work / performance of the contractor.

61.25(a) Conditions for Reimbursement of Levy/Taxes if Levied after Receipt of Tenders:

i) All tendered rates shall be inclusive of all taxes and levies payable under respect statutes. However, pursuant to the Constitution (46th Amendment) Act, 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the **(Insert proper competent authority)** (Whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.

ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of the Department and/ or the EIC and further shall furnish such other information/ document as the EIC may require from time to time.

iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (Forty Sixth Amendment) Act, 1982, give a written notice thereof to the EIC that the same is given pursuant to this condition, together with all necessary information relating thereto.

61.25(b) Other statutory duty, Tax such as I.T., GST etc, will be deducted at sources from the bills of the contractor and deposited with concerned authority.

61.25(c) Royalty, ECB charges, DMF, EMF, Additional cost if any, at the prevailing rate on minerals will be deducted from the bills of the contractor and deposited with concerned authority, if applicable.

I. Addendum to special condition of contract

Payment to the contractor break up schedule

1. All works except Colouring and painting

- In completion of 05 years- 100%
- In completion of 01 year- Maximum 20%
- In completion of one Quarter- Maximum 5%
- In completion of one month- Maximum 1.67%

2. For colouring

- 50% payment to be done within two years of signing of the agreement as per measurement.
- Rest 50% after the second painting/colouring which should be done 02 years after the first painting/colouring as per measurement.

NB: Payment to the contractor for maintenance/ operation and maintenance (as the case may be) of the PWS schemes as per following.

1. The rate accepted for maintenance/ O&M cost for the PWS has to be deposited by the contractor as per clause mentioned in "G" i.e. additional special condition in section 3 valid up to the end of contract of maintenance/ O&M period in duly pledged in favour of EE concerned as security.
2. The payment will be released only after receipt of the certificate from the authority of VWSC or any other committee responsible for the PWS scheme in the village/ GP or any other member nominated by EIC/ BDO/ JE-II/ AEE/ DEE concerned to the effect that the work has been done as per the conditions laid down in section 5 along with the checklist & the details of complaint received and compliance thereof.
3. The payment will be released as per above break up schedule on quarterly/monthly basis and at the end of each year after one-year defect liability period and at the end of every year, the security deposit towards maintenance/O &M (as the case may be) will be refunded after 5th year.
4. In case the contractor fails to comply with the terms and conditions of maintenance/ O&M of PWS scheme mentioned in section 5 and day to day compliance from the community, the security deposit will be forfeited.
5. O&M policy as approved by government to be followed in practice.

SECTION 4

CONTRACT DATA

CONTRACT DATA

The following documents are also part of the Contract :

Clause

Reference

The Schedule of Operating and Maintenance Manuals	[53]
The Schedule of Other Contractors	[8]
The Schedule of Key Personnel	[9]
The Methodology and Program of construction	[27]
The Schedule of Key and Critical equipment to be deployed on the work as per agreed programme of construction	[27]
Site investigation reports	[14]

1. The employer is [insert name & address of Employer] :

2. Name of the authorized Representative [insert name and address] :

3. The Engineer is [insert name and address of Engineer]

4. (i) The maintenance period shall be five years after completion of the work including the defect liability period of one year from the completion of the project for single village or multi village of single GP work.

(ii) For multi GP and multi village PWS schemes, operation and maintenance period shall five years including one year defect liability period.

5. The defect liability period shall be one calendar year, which is concurrent with the five years maintenance/ operation and maintenance period of the project. The bidder has to operate and maintain the project during Defect liability Period.

6. The Start Date/ Commencement Date: Date of issue of the Notice to proceed with the work.

7. The Intended Completion Date for the whole of the Works is [insert period] :

8. DELETED

9. The Site is located at : [insert location of site]

10. The name and identification number of the Contract is : [insert identification]

Contract No: [To be inserted during signing of Contract]

Name of Contract:"

11.	The law which applies to the Contract is the laws of Union of India		[Cl.3.1]
12.	The language of the Contract documents is English.		[Cl.3.1]
13.	The Schedule of Key Personnel	As per Appendix of Section II	[Cl. 1.6]
14.	Limit of sub contracting -20% of the Initial Contract price		[Cl. 7.1]
15.	The minimum insurance cover for physical property, injury and death is Rs. 1.0 lakh per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four occurrences always.		[Cl.13]
16.	DELETED		[Cl.14]
17.	DELETED		[Cl.21]
18.	The period for submission of the programme for approval of Engineer shall be 14 days from the issue of Letter of Acceptance.		[Cl.27]
19.	The currency of the contract is Indian Rupees		[CL.43]
	Retention money- 5% of gross value of the bill		[Cl. 44]
	The rates and prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to any adjustment.		[37]
22.	Maximum limit of liquidated damages for delay in completion of work.	1% of the balance work per week subject to a maximum of 10% (ten percent) of the Initial Contract Price rounded off to the nearest thousand.	[Cl.45]
23.	Amount of incentive/bonus for early completion of work.	As per the latest amendment to Para 3.5.5 of OPWD code	[Cl.46]

24.DELETED

25 The Securities shall be for the following minimum amounts [CL. 48]
equivalent as a percentage of the Contract Price:

PERFORMANCE SECURITY- two (2) per cent of contract price
(EMD 1% & ISD 1%)

26 DELETED [Cl.53]

27. DELETED [Cl.53.1]

28. The percentage to apply to the value of the work not completed representing [55.1]
the Employer's additional cost for completing the work shall be -20%

SECTION 5

TECHNICAL SPECIFICATION

**PROVISIONS CONTAINED IN RELEVANT SECTIONS AND CLAUSES OF
SPECIFICATIONS FOR PH & CIVIL WORKS SHALL BE FOLLOWED**

(To be included by TIA)

SECTION – 5

SCOPE OF WORK & TECHNICAL SPECIFICATION

A Sample Document of Scope of work & Technical Specification has been reflected. But the TIA should prepare the same as per the requirement of particular water supply project.

1.0 General Conditions

1.01 All works are to be executed in turnkey basis i.e. including labour and supply of material as per approved drawing, technical specifications and design (to be supplied by the contractor after duly approved by STA) and as per direction of EIC. All materials to be used shall confirm to relevant specifications as per latest edition of Indian Standard, unless otherwise stated in the detailed specifications of items of work

1.02 All the structures are to be designed as permanent type and shall have aesthetic elevation.

1.03 Form work shall be of steel plates and frame, sound seasoned timber or any approved materials as decided by EIC to be used for the centring and shuttering of the structures.

1.04 Machine mix - Machine mix shall be used in concrete work for all structure. Design mix of concrete shall be mandatory. Vibrator of appropriate type shall be used for compaction of concrete.

1.05 Painting of all steel / MS structure to be done as per approved quality of enamel paint over a coat of primer.

1.06 All the fittings and fixtures (such as valves, fittings, material of electrical and mechanical nature i.e chain pulley, pumps and motors, switches, transformer etc) are to confirm relevant IS specification and of reputed make and are supported with warranty and manufacturer's test certificate and should have authorised service centre inside the state.

1.07 All the work including supply of materials to be executed as per relevant IS specification and direction of EIC.

1.08 The surplus earth and debris should be lifted after completion of work and proper levelling of site as directed by EIC without any extra claim.

1.09 Foundation of all structure including supply of materials shall be designed depending on Ground water table / subsoil condition. In no case the depth of foundation below virgin soil shall be less than 1.00 mtr / it must be ensured to be taken down to a firm soil and below weathering effects.

1.10 All equipments, accessories, auxiliaries, piping, electrics, instruments, installations, construction, buildings etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contract shall be subjected to inspection & testing by the Department for its material, quality, workmanship and the performance. The contractor shall arrange and carryout all such inspection, testing, trial run etc. and demonstrate in presence of the EIC of the Department.

1.11 The steel / cement & other building materials will be test checked at the site by the Department or their representative at the cost of contractor to ensure proper quality as per IS specification.

1.12 Testing of water tightness of all RCC structure and Pipe line shall be conducted as per relevant IS Codes.

1.13. The cost of such inspection, testing, trial run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial run, demonstration etc. and any damage/loss that may cause directly or indirectly shall exclusively rest with the contractor.

1.14 Such inspection, testing, trial run, demonstration etc. shall, however, not relieve the contractor of their liability for replacing / rectifying any defects, which may subsequently appear or be detected during erection and guarantee period of one year.

1.15 All exposed faces of the concrete and plaster over masonry shall be given two coats of water proofing cement paint of approved shade & all exposed iron works outside the reservoir shall be painted with two coats of approved synthetic enamel paint. All exposed iron works inside the reservoir shall be painted with two coats of anticorrosive paint.

1.16. All equipments, sub-assembly and components, auxiliaries and accessories shall be tested at manufacturer's work site in accordance with relevant Indian Standards/International Standards. The contractor shall furnish all test certificates etc. related to the quality of all the materials to the Department along with the delivery of the materials at site without which no payment shall be released. However, such test certificates, quality assurance certificate shall not relieve the contractor of it's obligation to replace forth with any instrument/materials found defective during tests at works / trial running period/guarantee period.

1.17 The Department reserves the right to test any materials at any reputed department approved laboratories if necessity arises and the cost of which test(s) shall be borne by the contractor and rejected materials shall have to be replaced by the contractor by approved materials at his own cost.

1.18 The contractor is to supply and approve all structural design by State Technical Agency at his own cost (IIT Bhubaneswar, IGIT Sarang, CET Bhubaneswar, VSS UI Burla, NIT Rourkela). It is not binding to the department. The EIC can alternate the drawing from safety point of view. If the design/ drawing are given by the department then it is binding upon the contractor.

1.19 All materials required for completion and commissioning of the awarded work are to be procured by the contractor. Any materials given by the department to square up the store of department or to maintain the quality, the cost of such materials shall be deducted from the bill of contractor as per stock issue rate or purchase rate whichever is applicable as will be decided by the Executive Engineer concerned.

1.20 For all materials which come under EPM rate contract the contractor shall have to furnish CIPET inspection report (pre and post delivery) for PVC pipes and for other materials manufacturer's test certificate or EPM verification certificate before use of such materials.

1.21 All equipments, labour, tools & plants, instruments and other facilities for testing shall be provided by the contractor. He shall also maintain all records of the entire test and furnish the copies of the same to the Department.

1.22 The contractor before execution of the over head reservoir / underground reservoir/WTP will conduct necessary test for the determination of the safe bearing capacity of the soil at required depth and will

furnish the design and drawing prepared by an experienced engineer. The design will be scrutinised and checked as per cl 1.19 above. No extra payment will be made towards preparation of design and drawing of the ESR/UGR/OGR beyond the agreement amount. The cost of scrutiny and checking will also be borne by the contractor.

1.23 All R.C.C structures reinforcement to confirm Fe 415 and IS specification of SAIL, TISCON as per IS. 432 (Plain) & IS: 1786 (Tor).

1.24. Test for material shall be invariably is carried out by the contractor, when the same are specified in the specifications. Tests shall also have to be carried out, even though the same are not specifically mentioned in the specifications but in the opinion of the EIC, the same are required to be carried out. All such tests shall be carried out in Government Lab or laboratories approved by the EIC and cost shall be entirely borne by the Contractor.

1.25 .No collections of materials shall be made before it is not approved from the EIC.

1.26. Collection of approved materials shall be done at site of work in a systematic manner. Materials shall be stored in such a manner as to prevent deterioration or intrusions of foreign matter and to ensure the preservation of their quality and fitness for the work. Handling and storing of PVC pipes and specials will be made as per stipulation laid down in the PH Engineering 1992 specification vide clause no.2.3.5.

1.27. Materials, if rejected by the EIC, shall be immediately removed from the site of work. If they are not removed within twenty four hours of receiving such intimation, EIC shall get the same removed at contractor's cost. The EIC shall dispose of such materials in a manner as he chooses and the contractor shall not be entitled to any compensation for the cost of such materials.

1.28. Approval to the samples of various materials given by the EIC will not absolve the contractor from the responsibility of replacing the defective material brought on site or materials used in the work found defective at a latter date. The contractor shall have no claim to any payment or compensation whatsoever on account of any such materials rejected by the EIC.

1.29. All the items occurring in the work and as found necessary during actual execution shall be carried out in the best workman like manner as per specifications and the written order of EIC.

1.30. Extra claim in respect of any work as found necessary during actual execution to be executed which felt necessary by the E-I-C for an engineering requirement and better quality shall be allowed and considered to be covered under Lump Sum agreement value.

1.31. The contractor shall engage a qualified Engineer for the execution of work who will remain present for all the time on site and will receive instructions and orders from the EIC or his authorized representative. The instruction and orders given to the Contractor's representative on site shall be considered as if given to the contractor himself.

1.32. A work order book as prescribed shall be maintained on site of work by the contractor and the contractor shall sign the orders given by the inspecting officers and shall carry out them promptly.

1.33. Quantities specified in the tender may vary at the time of actual execution and the variation of payment due to above will be guided by the rate in the sanctioned estimate.

1.34 All levels given on drawings are approximate and the contractor shall be responsible to take regular level on the work. These levels shall be connected to the G.T.S. levels and shall be got approved from the EIC.

1.35 The contractor shall maintain a regular account of receipt and use of controlled materials purchased by him and or supplied by the department.

1.36 De-watering of trenches foundation etc., shall be done by the contractor at his own cost during execution of all items of this work till completion in all respect.

1.37 The contractor shall have to provide necessary shoring, shuttering arrangement for protecting the excavated portion of trench. Similar deep structure when excavation goes beyond 1.5 mtr from G.L. proper care shall to be taken to avoid due to failing of Kachcha wall portion. No extension in time limit will be considered due to such carelessness and delay. Contractors shall have to provide at his own cost all ways and means required for the excavation of the trench pit etc.

1.38 The details given in design plan section or specification schedule, General condition etc., shall be taken in to consideration and all these items shall have to be carried out. In case of any discrepancy of these the decision of the EIC shall be final and binding to the contractor.

1.39 The work shall be executed on strict accordance with the plans and specification only the best materials and the soundness construction shall be permitted and every portion of the work shall be executed in like manner to the satisfaction of the EIC whose decision shall be final and binding to the contractor. All the materials used in work shall be of best quality and any materials rejected shall be removed from the site of work by the contractor at his own cost within 24 hours.

1.40 In addition to the requisite stores the contractor shall provide at his cost suitable temporary office with a particular sitting arrangement in side and necessary finished furnished for the use of Govt. staff while the work is in progress.

1.41 The contractor shall provide at his own cost all labour, pages, strings and the other materials as may be required for lining and setting out and for taking measurement of the work. The contractor shall also provide at his own cost satisfactory and on adequate facilities like scaffolding, ladders, etc. for checking supervision and measuring the contractor's work by the Engineer. The contractor shall have to provide skilled and unskilled labourer free of cost for the above.

1.42 Water required for the execution of the work shall be supplied by the contractor at his own cost in the manner satisfactory to the EIC. Water required for testing shall also be supplied by the contractor.

1.43 Contractor shall be responsible for any accident to work or any damage done to adjoining property in which case he shall have to make it good at his own expenses

1.44 The contractor shall submit to the Department two sets of drawing showing the plan, elevation and perspective view, general arrangements of the structures with piping and valves etc. and structural design

and drawings as per the specifications in this DTCN for approval of STA/Authority at the earliest possible time.

1.45 In case the contractor fails to submit the designs and drawings in proper order within the stipulated time, the letter of acceptance of the tender is liable to be cancelled and earnest money is liable to be forfeited.

2.0 SCOPE OF WORK

The scope of work is broadly classified as -

1. Pump House: DELETED

2. Internal Electrification of pump house & other components ::

3. DELETED

4. DELETED

5. Construction of 150000 litre capacity RCC UGR:

DELETED

6. Rising Main and Distribution System

DELETED

7. Disinfection

DELETED

8. Installation of Pump and Motors

DELETED

9. Annual Maintenance of RPWS

9.1 All materials, components of the piped water supply systems during the period of maintenance shall be the property of Gram Panchayat / VWSC where the system is installed.

9.2 The break down maintenance of the entire system including supply of necessary spare parts, if any are already under the coverage of warranty clause of the General Terms & Condition and special terms & condition for a period of 5 years inclusive of defect liability period in such a manner that all the house hold of the PWS Scheme covered area will get (adequate) required quantity of supply water @ **70** LPCD taking supply hour as 8 hour/day without facing any problem. The operation and maintenance schedule of the PWS systems during the 5 years contract period shall be as detailed below.

9.2.1 5 years maintenance period shall begin on the date of actual completion of work of the PWS systems. The requisite numbers of qualified and trained personnel are required to be deputed / available in the state.

9.2.2 The deputed personnel shall be qualified and well trained so that they can handle any type of operation hazard quickly and timely.

9.2.3 The deputed personnel shall have to keep the record on monthly basis for the PWS systems as per format to be supplied after commissioning of the PWS.

9.2.4 The deputed personnel shall be in a position to check and test all the equipment regularly, so that preventive actions, if any, could be taken well in advance to save any equipment from damage.

9.3 During the maintenance period of 5 years of the systems, if there is any defect of any component of all systems the supplier shall be responsible for immediate replacement / rectification. The damaged component may be repaired, if it is understood after examination that after repairing performance of the component shall not be degraded, otherwise the defective component shall have to be replaced by new one without any extra cost.

9. Annual Maintenance of Sinlge / multi villages RPWS Scheme

9.1 All materials, components of the piped water supply systems during the period of maintenance shall be the property of Gram Panchayat / VWSC where the system is installed. The standby pump sets shall be handed over to the GP after commissioner.

9.3 The break down maintenance of the entire system including supply of necessary spare parts, if any are already under the coverage of warranty clause of the General Terms & Condition and special terms & condition for a period of 5 years inclusive of defect liability for one year in such a manner that every household covered under the PWS scheme will get required quantity of supply water @ 70 LPCD.

9.3.1 5 years maintenance period shall begin on the date of 100% commissioning of work of the PWS System.

9.22 During the maintenance period of 5 years of the systems, if there is defect in any component including pipes, the agency shall be responsible for immediate replacement / rectification. The damaged component is to repaired. If it is felt that the component may not yield the desired workability after repair, then the same may be replaced by the agency with an new one at their own cost. However in case the pump and motor needs replacement during 1st year of operation / warranty period whichever is more the same has to be done by the agency. Beyond the aforesaid period the replacement of pump & motor if felf necessary by the Engineer-In-Charge (due to uneconomical cost of repair) shall be done by the department. However, regular repair of pump & motor as and when required shall be done by the agency during 05 years of O & M.

9.3 Annual Maintenance Instructions:

9.3.1 The agency has to prepare a complete inventory of assets with detailed plan before handing over to the GP after 100 % commissioning of the projects.

9.3.2 Replacement and repair of damaged part shall be carried out immediately during the maintenance period so as to ensure normal supply of drinking water on daily basis.

9.3.3 System operation reports in the checklist format (copy enclosed) shall be furnished by the Junior Engineer concerned on quarterly basis to SDO who shall verify the same & submit to Executive Engineer.

9.3.4 The agency has to ensure replacement of worn out parts and components during the maintenance period of five years for which he has to keep minimum stock of essential spares at the head work site.

9.3.5 Repair and maintenance of FHTC connections up to the property boundary of beneficiaries shall be undertaken by the agency.

9.3.6 Cost of replacement of any part / component affected due to force majeure / theft shall be borne by GP/RWSS.

9.4 Routine, preventive, breakdown& Maintenance :

Routine and Preventive maintenance are required to be carried out on components of the systems on monthly / quarterly/half yearly/ annual basis to minimize breakdown and to ensure smooth and trouble free running of the project. The agency shall be responsible to carry out the routine and preventive maintenance and replacement of the equipment if any of the water supply system and he shall provide all labour, materials, consumables etc. For such routine and preventive maintenance at his own cost which should be duly recorded in the log book by the contractor. However the consumable required for treatment of water such as Alum, lime and bleaching powder shall be provided by the department.

9.4.1 Periodical maintenance of all valves shall be done quarterly. The change of spindle and bulb shall be done as and when required.

9.4.2 Maintenance of internal electrification shall be done as and when required.

9.4.3. Maintenance of disinfection system should be done every day such that the residue is cleaned and the plant runs in proper operating conditions.

9.4.4. a. The pump house, compound wall (included doors, windows, window grills main gate etc.) RCC UGR, OHR shall be painted at the end of 2nd year & 4th year by approved paint as per the direction of Engineer-In-Charge.

b. The GI/MS Pipe used for UGR / OGR in head works and distribution system shall be painted with anti corrosive paint every year prior to Monsoon.

9.4.5. The RCC UGR/OHT shall be disinfected every year after cleaning properly.

9.4.6 The Pumps and motors installed shall be removed for overhauling in the manufacturer's approved service centre and to replace the worn out parts at the end of 2nd year & 4th year and if required before that.

9.4.7. Replacement of taps for institutional storage tank / stand post shall be done with the best quality taps within 24 hours of problem detected / complaint received.

9.5 All the security deposit and maintenance cost will be released to the agency by the SE/EE RWS&S only after recommendation of Junior Engineer, RWSS-I / Assistant Engineer, RWS&S and Assistant Executive Engineer, RWS&S.

9.6 The agency shall ensure all the complaints entered in the complaint register be attended within 24 hours.

9.7 The agency shall repair the following type of defects within 24hrs of receipt of complaint or shutdown of the scheme.

i. Leakage in PVC/GI/HDPE/DI/CI pipe line, Column pipe used for pump motor and for ESR/GSR.

ii. Leakage in Valve & Stand post taps.

iii. Any type of internal electrical problem, problem in panel board, in Pump & motor, Cable etc.

iv. Repair of minor damage in pipe line up to 10 mt due to any reasons beyond the control of agency. For such repair the cost of pipe will be borne by the department. Road damaged during restoration of pipe line shall be repaired and restored to pre-cut condition by the agency.

9.8 The structures and its premises (inside and outside) shall be maintained clean, free from bush and debris which should be reflected in quarterly report

All the cost of labour, materials for repair and replacement during the 5 years maintenance period including one year defect liability period shall be borne by the agency.

9.9 Special conditions for retrofitting projects:

- 9.9.1 The agency shall be responsible for operation and maintenance of the entire new infrastructure as well as assets existing earlier.
- 9.9.2 Expenditure towards replacement of pre-existing pumps, valves, transformers and panel board, if any made during the O & M period shall be borne by GP from CFC / SFC fund.
- 9.9.3. For all other infrastructure and new infrastructure created under retrofitting, comprehensive O & M responsibility shall be vested with the agency in line with new small projects.

SCHEDULE A

Operation & Maintenance Requirements

1.1 The Contractor shall, at all times operate & maintain the Water Supply Project in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits. For the performance of its Operation & Maintenance obligations, the Contractor shall be paid as follows:

(a) The percentage of labour cost with respect to contract price of O&M which includes contribution towards [EPF@13.61%](#) ESI @4.75% and GST applicable for which the contractor has to provide necessary documentary evidence.

1.2 The Contractor shall repair or rectify any Defect or deficiency set forth in Paragraph 2 of this Schedule-A within the time limit specified therein and any failure in this behalf shall constitute non-fulfillment of the Operation & Maintenance obligations by the Contractor. Upon occurrence of any breach hereunder, the Authority shall be entitled to effect reduction in monthly lump sum payment, without prejudice to the rights of the Authority under this Agreement, including Termination thereof. Complaints received in Basudha helpline, X, paper clipping and from other portal/social media to be resolved emergently within 03 days.

1.3 All Materials, works and construction operation & Maintenance cost shall conform to the relevant IS specification and CPHEEO Manual of MoUD publications. Where the specifications for a work are not given, Good Industry Practice shall be adopted. [Specify all the relevant documents]. When pipeline shifting or re-routing becomes necessary due to project modifications (such as road expansions or infrastructure developments), the changes are typically formalized using a **supplementary agreement** (or addendum). This amends the original contract without replacing it.

2. Repair/rectification of Defects and deficiencies

The obligations of the Contractor in respect of Operation & Maintenance Requirements shall include repair and rectification of the Defects and deficiencies specified in Annex - VI of this Schedule-A within the time limit set forth therein.

3. Other Defects and deficiencies

In respect of any Defect or deficiency not specified in Annex - VI of this Schedule-A, the Authority's Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Contractor within the time limit specified by the Authority's Engineer.

4. Extension of time limit

Notwithstanding anything to the contrary specified in this Schedule-A, if the nature and extent of any Defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Contractor shall be entitled to additional time in conformity with Good Industry practice. Such additional time shall be determined by the Authority's Engineer and conveyed to the contractor and the authority with reasons thereof.

5. Emergency repairs/restoration

Notwithstanding anything to the contrary contained in this schedule-A any Defect, deficiency or deterioration which creates a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimizing such danger.

6. Daily inspection by the Contractor

The Contractor shall, through its engineer, undertake a daily visual inspection of the Water Supply Project and maintain a record thereof in a register to be kept in such form and manner as the Authority may specify. Such record shall be kept in safe custody of the Contractor and shall be open to inspection by the Authority at any time during office hours.

7. Pre-monsoon inspection / Post-monsoon inspection

Deleted

8. Repairs on account of natural calamities

All damages occurring to the Water Supply Project on account of a Force Majeure Event or default or neglect of the Authority shall be undertaken by the Authority at its own cost. The Authority may instruct the Contractor to undertake the repairs at the rates agreed between the Parties.

Scope of operation & maintenance

The operation and maintenance of huge regional scheme of multi village, multi GP in nature is a very important aspect of the maintenance phase and has to be diligently and only the experienced officials and skilled persons deployed to ensure sustainability and who are always aware of the essential aspect that any mishandling, carelessness and neglect of periodical maintenance schedule will result in the suspending of water supply of Hundreds of villages.

Water supply management involves following functions;

- Provision and maintenance of adequate facilities
- Good and smooth operation of the system
- Efficient and economical maintenance of the system
- Efficient control of equipment and supplies of consumables
- Constant surveillance for keeping wastage of water to a minimum
- Good public relation and satisfactory service to consumers
- SCADA for operation and maintenance
- Ensuring quality, quantity of water.

Task involved in management are:

- Objectives plans with charts to indicate the work past, present and future and the time schedules.
- Describing the duties powers and responsibilities of each employee of the organization for routine maintenance and in emergencies with a list of Do's and don'ts for the operational staff in regional language.
- Establishment of good record system of manuals, drawings, lubrications charts for machineries and the like so that they are available even after a decade or two when there is every likelihood that they are not available from the manufacturers due to possible change in designs or other reasons.
- In-service training of the personnel technical and non-technical and recruitment based on competent individuals with strong dedication to work for the society.
- Carrying out health education programmes to get full co-operation of beneficiaries in preventing contamination of the water supply and promoting value of protected water for judicious use to prevent wastage by the help of SCADA.

Annexure-VI (SCHEDULE A)
Rectification of Defects and Deficiencies

Sl. No.	Name of Defect or Deficiencies	Time limit for repair/rectification
1.	Pumps, motors and control panels	Up to 50 HP-7 days Above 50 HP-15 days
2.	Transformer/substations	Minor repair-24 Hrs. Major repair-3 days
3.	Raw water/clear water rising/gravity mains	24 Hrs.
4.	Distribution system	24 Hrs.
5.	WTP-Mechanical/Electrical equipments, instrumentation and control system (excluding items covered in Sl No.1 to 4 above)	24 Hrs.
6.	Determination of chemical dosing rate	Thrice daily (batch wise)
7.	Water sample testing	Daily test as per CPHEEO Manual
8.	Preventive maintenance	Monthly, quarterly, half-yearly, annually and bi-annually

PAYMENT REDUCTION FOR NON-COMPLIANCE

1. Payment reduction for non-compliance with the operation & maintenance requirements

1.1 Monthly lump sum payments for Operation & maintenance shall be reduced in the case of non-compliance with the Operation & Maintenance Requirements set for in Schedule-A.

1.2 Any deduction made on account of non-compliance with the Operation & Maintenance requirements shall not be paid even after compliance subsequently. The deductions shall continue to be made every month until compliance is done.

1.3 The Authority shall calculate the amount of payment reduction on the basis of weightage assigned to non-conforming items as given in Paragraph 2.

1.4 In the event that the Contractor- fails to repair or rectify any Defect or deficiency set forth in Schedule-A within the period specified therein, it shall be deemed as failure of performance of Operation & maintenance obligations by the Contractor and the Authority shall be entitled to effect reduction in monthly lump sum payment for maintenance, without prejudice to the rights of the Authority under this Agreement, including Termination thereof.

1.5 If the nature and extent of any defect justifies more time for its repair or rectification than the time specified in Schedule-A, the contractor shall be entitled to additional time in conformity with Good Industry practice. Such additional time shall be determined by the Authority's Engineer and conveyed to

the contractor with reasons thereof.

1.6 Authority's right to take remedial measures

In the event the Contractor does not maintain and/or repair the Project Highway or any **part** thereof in conformity with the Operation & Maintenance Requirements, the Operation & Maintenance Manual or the Operation & Maintenance Programme, as the case may be, **and** fails to commence remedial works within 15 (fifteen) days of receipt of the Operation & Maintenance Inspection Report or a notice in this behalf from the Authority, as the case may be, the Authority shall, without prejudice to its rights under this Agreement including Termination thereof, be entitled to undertake such remedial measures at the cost of **the** Contractor, and to recover its cost from the Contractor. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Contractor to **the** Authority as Damages.

1.7 Restoration of loss or damage to Water Supply Project

Save and except as otherwise expressly provided in this Agreement, in the event that the Project or any part thereof suffers any loss or damage during the maintenance from any **cause** attributable to the Contractor, the Contractor shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Project conforms to the provisions of this Agreement.

1.8 Overriding powers of the .Authority

1.8.1 If in the reasonable opinion of the Authority, the Contractor is in material breach of its obligations under this Agreement and, in particular, the Operation & Maintenance Requirements, and such breach is causing or likely to cause material hardship or danger to the Users and pedestrians, the Authority may, without prejudice to any of its rights under this Agreement including Termination thereat: by notice require the Contractor to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.

1.8.2 In the event that the Contractor, upon notice under Clause 1.8.1, fails to rectify or remove any hardship or danger within a reasonable period, the Authority may exercise overriding power under this Clause 1.8.2 and take over the performance of any or all the obligations of **the**, Contractor to the extent deemed necessary by it for rectifying or removing such hardship **or** danger; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required hereunder; provided **further** that any costs and expenses incurred by the Authority in discharge of its obligations hereunder shall be recovered by the Authority from the Contractor, and the Authority shall be entitled **to** deduct any such costs and expenses incurred from the payments due to the Contractor under Clause 1.6 for the performance of its Operation & Maintenance obligations.

1.8.3 In the event of a national emergency, civil commotion or any other circumstances, the Authority may take over the performance of any or all the obligations of **the** Contractor to the extent deemed necessary by it, and exercise such control over the Project **or** give such directions to the Contractor as may be deemed necessary; provided that the exercise of Overriding powers of the .Authority shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which caused the exercise of Overriding powers of the Authority. For the avoidance of doubt, it is agreed that the consequences of such action shall be dealt in accordance with provisions of section 7. It is also agreed that the contractor shall comply with such instructions as the Authority may issue in pursuance of the provisions of this Clause 1.8.3, and shall provide assistance and cooperation to the Authority, on a best effort basis, for performance of its obligations hereunder.

2. Reductions in lump sum payments

2.1 The following shall govern the payment reduction:

A] REDUCTION TO BE MADE FROM LUMP-SUM PAYMENT FOR NONPERFORMANCE OF DAILY MAINTENANCE

Sl. No.	Items	Penalties
	Pumps, motors & control panels	
1.	If daily checks are not undertaken	Rs.50.00/each /day
a)	If steps are not taken to rectify defects	Rs.100.00/each day beyond the day on which the defects were noticed.
b)	If defects are not rectified within the time as prescribed in Schedule - A or within a justified time frame in the opinion of the Engineer-in-charge, whichever is later.	The defects may be rectified by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.
2.	Transformers/Sub-stations	
a)	If daily checks are not undertaken	Rs.50.00/each Transformer or Substation/day
b)	If steps are not taken to rectify defects	Rs.100.00/each day beyond the day on which the defects were noticed.
c)	If defects are not rectified within the time as prescribed in Schedule - A or within a justified time frame in the opinion of the Engineer-in-charge, whichever is later.	The defects may be rectified by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.
3.	Raw Water/Clear Water Rising/ Gravity Mains	
a)	If daily checks are not undertaken	Rs.100.00/each Km./day
b)	If leakages are not rectified within 24 hours.	• Rs.200.00/each leakage/ day for pipe lines upto 300 mm dia. • Rs.400.00/each leakage/ day for pipe lines beyond 600 mm dia.
c)	If defects are not rectified within the time as prescribed in Schedule – A or within a justified time frame in the opinion of the Engineer-in-charge, whichever is later.	The defects may be rectified by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.

4. Distribution Systems, WTP & Water Quality

4	Distribution Systems	
a)	If daily checks against complaints received are	Rs.50.00/each complaint/day

	not undertaken	
b)	If corrective measures against complaints/leakages are not rectified within 24 hours.	Rs.100.00/each complaint or leakage/ day
c)	If leakages are not rectified within the time as prescribed in Schedule – A or within a justified time frame in the opinion of the Engineer-in-charge, whichever is later.	The defects may be rectified by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.
5	WTP – Mechanical/ Electrical Equipments, Instrumentations & Control System (excluding items covered in Sl.No.1 to 4 above)	
a)	If daily checks are not undertaken	Rs.400.00/each/day
b)	If corrective measures/steps against defects are not undertaken within 24 hours.	Rs.800.00/each defect/ day
c)	If defects are not rectified within the time as prescribed in Schedule – A or within a justified time frame in the opinion of the Engineer-in-charge, whichever is later.	The defects may be rectified by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.
6	Water Treatment & Water Quality Monitoring	
a)	If daily checks on chemical dosing are not undertaken (use of any sub-standard or spurious chemicals for water treatment is strictly forbidden)	Rs.400.00/each shift of 8 Hrs.

BJ REDUCTION TO BE MADE FROM LUMP-SUM PAYMENT FOR NONPERFORMANCE OF PERIODIC MAINTENANCE

1	Monthly	
a)	Pumps, Panels, Circuit Breakers & Starters	Rs.800.00/month
b)	Transformers/Sub-stations	Rs.400.00/month
2	Quarterly	
a)	Motors, Panels, Circuit Breakers & Starters, etc.	Rs.1200.00/month
b)	Transformers/Sub-stations	Rs.800.00/month
3	Semi-Annually (Half Yearly)	

a)	Pumps, Motors, Panels, Circuit Breakers & Starters, etc.	Rs.1600.00/month
b)	Transformers/Sub-stations	Rs.1600.00/month
c)	De-sludging in water treatment units as per recommendation in the CPHEEO manuals.	These items of works will be taken up by the Department by engaging any other suitable agency and the cost thereof & damages shall be recovered from the contractor as per clause 14.2.
4	Annually	
a)	Pumps, Motors, Panels, Circuit Breakers & Starters, etc.	Rs.2000.00/month

DETAILS OF OPERATION & MAINTENANCE OF THE WATER SUPPLY PROJECTS

The contractors shall operate & maintain the RPWS projects for 5 calendar years after completion of work including defect liability period of one year as per the details given below.

1. Supplying required manpower including payment of their wages/ remuneration (requirement of manpower enclosed at Annexure-II) for running of pumps at head works/ WTP/ operation of valves at head works, treatment unit, rising main, gravity main and distribution system. Repair of rising main, distribution system, gravity main including repair of stand post and valves chambers, watch and ward of head works, treatment unit, service reservoir and gravity main.
2. Supply of consumable like bleaching powder, alum, lime required for treatment of water as per water supply manual as treatment unit according to the turbidity of raw water and maintenance of required residual chlorine at the farthest point of delivery.
3. Payment of all energy bills of all components of the water supply system will be paid by the authority during O&M period.
4. Minor & major repair of all civil structural units, electrical and mechanical equipments to run the water supply effectively and efficiently during the O&M period.

5. Besides this, any other special repair to civil/ PHE structures, electrical & mechanical equipments etc. are to be done by the contractor as and when required, as per the direction of EIC. for ensuring safe, smooth, uninterrupted water supply.
6. Payment of manpower, chemicals, consumables, all repairs (minor/ major/ special) shall be borne by the agency during the O&M period.
7. The maintenance work shall be taken up by the contractor as mentioned in clause No.9 of Section V.
8. The contractor shall furnish the information as per the checklist for operation and maintenance mentioned above to the EIC in a weekly basis, monthly basis, quarterly basis and yearly basis.
9. **During the Maintenance Period, the Authority shall provide to the Contractor access to the Site for Maintenance in accordance with this Agreement. The obligations of the Contractor here under shall include:**
 - (a) **permitting safe, smooth and uninterrupted flow of water to the communities;**
 - (b) **undertaking routine maintenance including prompt repairs of all components of water supply system including civil, electrical & mechanical installations including pipelines;**
 - (c) **undertaking repairs to structures;**
 - (d) **informing the Authority of any unauthorized use of water;**
 - (e) **operation and maintenance of all components of water supply project and conveyance system necessary for the efficient maintenance of the Project in accordance with the provisions of this Agreement.**
10. **The contractor shall remove promptly from the project any waste materials(including hazardous Materials and waste Water), rubbish and other debris (including, without limitation, accident debris) and keep the Project in a clean, tidy and orderly condition, and in conformity with the Applicable Laws, Applicable Permits and Good Industry Practice.**
11. **Operation & Maintenance Programme**
The Contractor shall prepare a monthly maintenance programme (the Operation & maintenance Programme") in consultation with the Authority's Engineer and submit the same to the Authority's Engineer not later than 10 (ten) days prior to the commencement of the month in which the Maintenance is to be carried out. For this purpose a joint monthly inspection by the Contractor and the Authority's Engineer shall be undertaken. The Operation & Maintenance Programme shall contain the following:
 - (a) **The condition of the civil, electrical & mechanical installations including pipelines in the format prescribed by the Authority;**
 - (b) **the proposed maintenance works; and**
 - (c) **deployment of resources for maintenance works.**
12. **System closure**
 - 12.1 The Contractor shall not close any zone of the water supply system for undertaking Operation & maintenance works except with the prior written approval of the Authority. Such approval shall be sought by the Contractor through a written request to be made at least 10 (ten) days before the proposed closure of system and shall be accompanied by particulars thereof. Within 5 (five) business days of receiving such request, the Authority's Engineer shall grant permission with such modifications as it may deem necessary.
 - 12.2 Upon receiving the permission pursuant to Clause 12.1, the Contractor shall be entitled to close the designated zone/component for the period specified therein, and in the event of any delay in re-functional of the system, the Contractor shall,

pay Damages to the Authority calculated at the rate of 0.1% (zero point one per cent) of the monthly Operation & maintenance payment for each day of delay until the system has been functional.

Requirement of manpower for O&M

This is an indicative one. The bidder has to assess the same as per the requirement of the project for O&M works.

Sl. No	System component as per flow line	Category	Required number
1	Overall supervision of O&M of the system	Maintenance Engineer (Minimum qualification Diploma in Civil	Quantity to be decided by the TIA as per specific scheme & CPHEEO manual/detailed estimate whichever is higher.
2	Raw water pump house	Pump operator	
3	Clear house pump house at WTP	Pump operator	
4	Raw water pump house	Helper/ fitter	
5	Raw water rising main	Helper/ fitter	
6	Treatment works	Helper/ fitter	
7	Clear water rising main	Helper/ fitter	
8	WTP works	Helper/ fitter	
9	Raw water pump house	Watchman	
10	WTP works	Watchman	
11	Service reservoirs	Watchman	
12	Gravity main	Watchman	
13	Distribution system	Fitter	
14	Distribution system	Helper	

3.0 SPECIFICATION

3.1 Water used for mixing and curing shall be clean and free from injurious quantities of alkalis, acids, oils, salts, sugar, organic materials, vegetable growth or other substances that may be deleterious to bricks, stone, concrete or steel. Potable water is generally considered satisfactory for mixing. The PH value of water shall be not less than 6 and more than 8.0.

3.2 Cement shall not be less than O.P.C.-**53 grade** and as per IS: 12269 of reputed Manufactures.

3.3 Reinforcement to confirm Fe 500 and as per IS: 456 and IS: 1786.

3.4 Mild Steel Binding Wire:

The mild steel wire shall be of 1.63 mm or 1.22 mm (16 or 18 gauge) diameter and shall confirm to IS-280 or as revised from time to time.

3.5 Sand for Masonry Mortar, Concrete mix and for Plaster:

Sand shall consist of natural sand, crushed stone sand or crushed gravel sand or a combination of any of these. Sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain the amount of clay, silt and fine dust more than specified.

3.6 Bricks:

The contractor shall supply first class K.B. Brick for all brick work. The bricks shall be hard or machine moulded and made from suitable soils and kiln burnt. They shall be free from cracks and flaws and modules of free lime. They shall have smooth rectangular faces with sharp corners and shall be of uniform colour. The size of the conventional bricks shall be 250 mm x120 mm x 80mm. The crushing strength of the bricks shall not be less than 75 kg/sq.cm. The average water absorption shall not be more than 20 percent by weight. A necessary test for crushing strength and water absorption shall be carried out as per IS: 3495 (Parts I to IV) as directed by the EIC.

3.7 Cement Concrete

The concrete shall be in grade designated as under:

GRADES OF CONCRETE

Group	Grade	Specified Characteristic Compressive Strength of 150 mm Cube at 28 Days in N/mm²
Designation		
Ordinary	M10	10
Concrete	M15	15
	M20	20
Standard	M25	25
Concrete	M30	30

Notes:

1. In the designation of concrete mix M refers to the mix and the number to the specified compressive strength of 150 mm size cube at 28 days, expressed in N/mm²

Concrete Mix Proportioning:

The determination of the proportion of cement, aggregate and water to attain the required strengths shall be made as follows:

By designing the concrete mix; such concrete shall be called 'Design mix concrete.

Construction Joints:

Concreting shall be carried out continuously up to construction joints. The position and arrangement of construction joints shall be as shown in the structural drawings or as directed by the EIC. Number of such joints shall be kept minimum. Joints shall be kept as straight as possible. Construction joints should comply with IS: 11817.

When the work has to be resumed on a surface which has hardened, such surface shall be roughened. It shall then be swept, cleaned and thoroughly wetted. For vertical joints, neat cement slurry, of workable consistency by using 2 kgs of cement per sqm shall be applied on the surface before it is dry. For horizontal joints, the surface shall be covered with a layer of mortar about 10-15 mm thick composed of cement and sand in the same ratio as the cement and sand in concrete mix. This layer of cement slurry or mortar shall be freshly mixed and applied immediately before placing of the concrete.

All construction joints in floor or wall shall have PCJ which should be provided in the slab.

All other RCC structures shall be of Grade M 20 except ESR/UGR/WTP which shall be of M-25.

Design mix of concrete shall be mandatory. Machine mix shall be used in concrete work for all structure. Vibrator of appropriate type shall be used for compaction of concrete.

For testing of concrete cubes, samples from fresh concrete shall be taken as per I.S. 1199 of latest edition, cured for 7 days and 28 days for testing cubes in Govt. Laboratory/ Govt. Recognized Laboratory of Odisha, of each component of RCC structures and the Cost of testing of concrete cube will be borne by the contractor.

3.8. Curing

Curing is the process of preventing loss of moisture from the concrete. Exposed surfaces of concrete shall be kept continuously in a damp or wet condition by ponding or by covering with a layer of sacking, canvas, hessian or similar materials and kept constantly wet for at least 7 days from the date of placing concrete in case of ordinary Portland cement and at least 10 days where mineral admixtures or blended cements are used. The period of curing shall not be less than 10 days for concrete exposed to dry and hot weather conditions. However, the site record Book is to be maintained with date of curing of structure and component of works like OHR, compound wall, Pump house etc. and duly counter signed by J.E. / A.E. and A.E.E. in regular interval i.e. twice in every week.

3.90. ESR / UGR

The ESR/UGR work shall be executed on strict accordance with the design and drawing approved by the State Technical Agency and also fulfilled the following requirements & specification.

- (a) Plain concrete of Grade-M-10 under footings of ESR.
- (b) RCC Grade-M-25 in all members in Construction of ESR/UGR.
- (c) The tank shall be ventilated by providing ventilators over the roof. The openings of the ventilators shall be protected with mosquito proof copper/Bras wire netting made of copper wire mesh. Adequate ventilation area shall be provided in relation to the area of water face and aesthetic requirement.
- (d) All RCC works shall be finished perfectly smooth and no plastering shall be allowed except in the inside surface of walls and floors which shall be finished with a coat of epoxy paint and cement punning with water proof compound over 20mm thick cement plaster in cement mortar. (1:3).
- (e) All exposed faces of the concrete and plaster over masonry shall be given two coats of water proofing cement paint of approved shade.
- (f) All exposed iron works outside the reservoir shall be painted with two coats of approved synthetic enamel point. All exposed iron works inside the reservoir shall be painted with two coats of anticorrosive paint.

For access in to the over head reservoir in case of shaft there shall be RCC stair case with landings at suitable intervals to be located inside the shaft. The width of the stairs and landings shall be not less than 800 mm/ as per drawing. The stairs shall be provided with structural stainless-steel hand railings of approved design for a minimum height of 800mm. There shall be either a central access inside the tank or a catwalk with two rows of horizontal runner sat each side holding the vertical posts, suitable stainless-steel guard rails all around. In both the cases access to the roof of the reservoir shall be provided. In case of column & beam structure stairs and landings with stainless steel hand railings shall be provided around the columns. Size of stair and hand railings will be same as stated above.

(g) In case Elevated reservoir is supported on a load bearing shaft, there shall be an entrance door in the shaft wall of size not less than **1.10 m. X 2.00 m**. There shall also be windows of suitable size in the shaft wall at different levels. Concrete flooring shall be provided inside the shaft at a ht. of 600 mm above the finished ground level. The doors shall be provided with M.S. frames and shutters.

(h) The following appurtenances shall be provided.

R.C.C. ladders (duly designed and approved by State Technical Agency) from ground level to top of the tank and stainless-steel ladder from top of the tank into the bed of reservoir shall be provided along with hand rails made of series of stainless-steel bars. The stainless-steel ladders shall be sturdy and should be fastened and anchored to the concrete by means of anticorrosive nuts and bolts (the size of stainless-steel ladder to be duly designed and approved by State Technical Agency).

(i) One set of digital water level indicator (indicating amount of water in Kiloliter) consisting of copper float guide pulleys, nylon cord and enamel coated gauge calibrated to indicate depth of water in meter or equivalent amount of water in kiloliters or of any latest technology of reputed make as per direction of EIC.

(j) CI (cast iron) lockable hinged type manhole covers of 600mm diameter each 50 Kg weight with frame and cover fixed at suitable places in the roof of the tank not less than two numbers of manhole cover shall be provided.

(k) A lightening arrestor of copper shall be provided on the roof of the tank as per IS 2309. The top of the lightening arrestor shall be above the highest point of the roof. The arrestor shall be suitably earthed with aluminium tape conductor.

(l) All construction joints in floor or wall shall have PCJ which should be provided in the slab. During jointing of RCC wall provision of water bar is mandatory.

(m) All concrete works for water retaining as well as the supporting structures shall be executed, tested as per IS 456, 1978, IS 3370 (Part-I) 1965 and IS3370 (Part-II) 1965.

(n) The water tightness test of the water contains shall be conducted to satisfy the provisions in Clause – 10, tests on structures, as laid in I.S. 3370 (Part—I) 1967 with latest revision.

3.10. SPECIFICATION FOR GI PIPES AND FITTINGS

Specification for pipe-- IS: 1239 (part-I) G.I. Screw/Socket end tested.

Specification for fittings-- IS: 1239 (Part-II), GI, Screw end tested

Valves, stop cocks, bib cocks -- IS: 778, Gun Metal Construction, screwed.

3.11. SPECIFICATION FOR ISI MARKED VALVES

(a) Pump delivery sluice valves and scour valves -

Double flanged sluice valves, rising spindle, rating: PN 1.0 (10kg/cm²) or as per requirement whichever is more. IS: 14846/ 2000 with latest Amendment if any,

Body: CI Spindle: SS, AISI-410

(b) Non-return valves-- Double flanged swing check type, rating: PN 1.0 (10kg/cm²) or as per requirement whichever is more IS: 5312 with its latest Amendment

Body: CI, Disc: CI, Spindle: SS, AISI-410

(c) Throttle valve / control valve-- Butterfly valves (Rating 10kg/cm²) suitable rating. BS: 5155, AWWA: C-504, Body: CI. Disc: CI, Spindle: SS AISI_410

3.14 Specification for procurement and laying of ISI Marked un-Plasticized PVC pipes.

1) PVC Pipes shall be procured as per IS:4985 from the BIS licensed manufactures of Odisha having supported with manufacturers test certificate, guarantee certificate in favour of the E.E., RWS&S Division and for free replacement of defective pipe within 36 months from the date of manufacture if detected even after CIPET pre and post inspection test.

2) The PVC pipes shall be tested by CIPET at the manufacturer's premises before delivery at the cost of the bidder. Post delivery test at the construction site shall again be conducted by CIPET at the bidders cost. The test certificates shall be handed over by the bidder to the Executive Engineer of the Division before laying of pipes line.

3) Fabricated PVC fittings 10 kg/Cm² as per IS:10124(Part 1 to 13) or Injection moulded PVC fittings 10 kg/Cm² IS 7834 : Part-I : 1987 shall be procured by the bidder from the BIS licensed manufactures of PVC fittings with collection of valid manufactures test certificate and BIS Certificate. The certificates should be handed over to the EIC before use.

4) Fixing of sluice valves, Air valves, N.R valves. Butterfly valves, etc. shall be done at required places as per PH/RWS&S specification and direction of EIC.

5) Size of Trench

(a) Width of the trench: The trench should be as narrow as practicable. As a normal practice this may be kept 0.30m over the outside dia. of pipe (i.e. external dia. of pipe +30cm.) Confirming to PH Engineering specification - 1992 vide clause no.2.3.6

(b) Depth of the trench: The depth of the trench should be 1 m from the ground level.

(c) The trench bottom where it is rocky and un-even a layer of sand or alluvial earth of 100 mm depth should be provided under the pipe.

3.15 **Submersible Pump**

The Submersible pump-set should confirm to I.S 8034-1989 with latest amendment. The pump should be fitted dynamically balance enclosed type impeller. Each impeller shall be balanced dynamically to grade of G 6.3 (6.3mm/s) The Pump shaft shall be guided by bearing provided in each stage bowl & in the suction and discharge casing. The inlet passage of the suction casing shall be stream lined to avoid eddies. The suction case shall be fitted with a strainer of corrosion resistant material. Suitable sand guard shall be provided just above the suction case bearing to prevent the entry of foreign material into suction case. The pump should be provided with the non return valve above the pump discharge case with standard flanged connection. The individual casting part or pump as a whole in assembled condition should be able to with stand a hydrostatic pressure of 1.5 time maximum discharge pressure. The gaskets & seals used shall confirm to I.S 5120-1968 or latest. The cable clamp of adequate size be supplied for fixing submersible cables to the rising main pipes.

The pump shall be directly coupled to a submersible motor. The submersible motor shall be squirrel case induction motor conforming to I.S 9283-1979 or latest capable of operating on 415 + 6% volts. 3 phase 50 cycles. A.C supply both and motor shall run at 2900 R.P.M the water lubricated thrust bearing should be of adequate size to withstand the weight of all rotating parts as well as the imposed hydraulic thrust. The motor shall be protected by means of cable glands, rubber seals etc from ingress of bore well water, sand and other foreign materials. The motor shall be provided with breathing attachment like bellows, diaphragm etc. to compensate the volumetric variation due to change in the temperature. The motor shall be made of corrosion resisting materials or suitable materials to resist corrosion under normal conditions. The rotor shall be provided with shaft protecting sleeves having a surface finish of 0.75 microns Ra Max. The starter shall be star delta. The class of insulation shall be F. The submersible motor shall conform to IS 694 (Part-III) 1964 or latest. The flanged column pipe shall conform to IS 694 (Part-III) 1964 or latest. The flanged column pipe shall conform table 2 I.S 1239 (Part-I) 1979 or latest (Medium class) Table-2.

The efficiency of submersible pump shall be guaranteed to specified point of rating only & shall not be guaranteed to cover the performance of the pump under condition varying there from nor for a sustained performance for any period of time. The pump discharge may be guaranteed for the range of head between - 25 % & + 10% of the specified head when the latter is 30 meters or above. Below 30 meters the limits shall be from 25% to 25% or +3 meters whichever is less. The H.P of motor shall be such that it shall be 15% in the excess of maximum H.P. required under all heads of working. Performance guarantees shall be based on laboratory tests corrected for field performance.

4.0 Testing & Commissioning

4.1. All equipments, accessories, auxiliaries, piping, electrics, instruments, installations, construction, buildings etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contractor shall be subjected to inspection & testing by the Department for its material, quality, workmanship and the performance. The contractor shall conduct and carryout all such testing, trial run etc. before and during the execution of any work for which site test is mandatory and demonstrate in presence of the EIC of the Department or his representative or any third party deployed by the department.

4.2 . The cost of such inspection, testing, trial run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial run, demonstration etc. and any damage/loss that may cause directly or indirectly shall exclusively rest with the contractor.

4.3. Such inspection, testing, trial run, demonstration etc. shall, however, not relieve the contractor of their liability for replacing / rectifying any defects, which may subsequently appear or be detected during erection, execution and guarantee period.

4.4. All equipments, sub-assembly and components, auxiliaries and accessories shall be tested at manufacturer's work in accordance with relevant Indian Standards/International Standards. The contractor shall furnish all test certificates etc. related to the quality of all the materials to the Department along with the delivery of the materials at site without which no payment shall be released. However, such test certificates, quality assurance certificate shall not relieve the contractor of its obligation to replace forthwith any instrument/materials found defective during tests at works / trial running period/guarantee period.

4.5. Testing for performance of equipments shall be carried out and be checked with the approved parameters and performance characteristic curves for the purpose of acceptance.

4.6. Testing of all pipe lines

After laying and jointing, the mains shall be slowly and carefully charged with water, so that all air is expelled from the main by providing a 25mm inlet with stop cock allowed to stand full of water for a few days and then tested with pressure.

The field test pressure to be imposed should not less than the maximum of the following.

- a. 1.5 times the maximum sustained operating pressure.
- b. 1.5 times the maximum pipeline static pressure.
- c. Sum of the maximum sustained operating pressure and the maximum surge pressure.
- d. Sum of maximum sustained operating pressure and the maximum equal to the work test pressure for any pipe fittings incorporated.
- e. Testing of C.I., D.I., G.I. and U.P.V.C. Pressure Pipes after laying and jointing must be done in presence of EIC (not below the rank of AEE) to ensure that pipes and joints are sound enough to withstand the maximum pressure likely to be developed under working condition.

4.7. Disinfection of pipeline before commissioning

The Pipeline carrying potable water shall be suitably disinfected before commissioning as per IS: 3114-1965 or IS: 5822-1970 vide clause no.2.3.13 of PH Engineering specification and direction of the Engineer in Charge.

4.8. Testing & Inspection of submersible pump at Manufacturer's Work site.

The manufacturer shall conduct all tests required to ensure that the equipment furnished shall confirm to the requirement of this specification and in compliance with requirements of the applicable codes. The EIC or his representatives shall be given full access to all tests; the manufacturer shall inform the EIC allowing adequate time so that if he desires his representatives can witness the test. All materials & casting used for the equipment shall be to tested quality. The test certificates shall be made available to EIC. The pump casing shall be hydraulically tested at 200% of pump rated head or at 150% of shut-off head, whichever is higher. The test pressure shall be maintained for at least half an hour. The pump rotating parts shall be subjected to static and dynamic balancing tests. All pumps shall be tested at the shop for capacity, head efficiency & brake horsepower and cavitations. The tests are to be done according to the requirements of the "Hydraulic institute" of U.S.A ASME power test code PTC -8.2 (Last edition) and Indian standard as applicable . The pumps accessories e.g the thrust bearing, the motor pump shaft coupling etc. will be subjected to test s as per manufacturer's standard . The combined vibration of pump & motor should be restricted to the limits specified by Hydraulic institute standard , USA when the pump in operation at any loads singly or in parallel . Tests on motor shall be conducted as per electrical specification. The reports & certificates of all the above mentioned tests to ensure satisfactory operation of the system shall be submitted to the EIC before dispatch. Cast heat marks to be provided on casting for casing & impeller.

Tests at Site

After erection at site, pumps as detailed under different groups shall be operated to prove satisfactory performance as individual equipment as well as whole system for the water supply scheme.

4.9 Testing of chlorinator to be made in the presence of EIC or his representative (not below the rank of AEE) and district level laboratory assistant. All the materials are of best quality of ISI make of any reputed manufacturer. The performance of agitator, dosing pump should function as per the requirement and manufacturer's test certificate. The bleaching powder to be used as per the IS specification having minimum available chlorine of 33%. Other disinfectant like sodium hypochlorite can also be used. The residual chlorine available to be tested and to be confirmed 0.2mg/litre at **tail** end of all distribution lines.

4.10 Inspection and testing of internal and external electrification to be made by the electrical inspector which is to be arranged by the contractor and any defects detected to be rectified immediately within a week period at his own cost for re- inspection if any. The charging of internal and external electrification has to be made by the contractor through the electrical distribution company.

SECTION-6

SUPERVISION AND MONITORING
DURING OPERATION AND
MAINTENANCE

1. Inspection by the Contractor

1.1 The Authority shall undertake regular inspections to evaluate continuously the compliance with the Operation & Maintenance Requirements.

1.2 The Contractor shall carry out a detailed inspection of all structures & Water System in accordance with the guidelines contained in Manual on O&M of water supply systems published by CPHEEO. Report of this inspection together with details of proposed operation & maintenance works as required shall be conveyed to the Authority forthwith. The Contractor shall complete the proposed operation & maintenance works and send a compliance report to the Authority.

2. Inspection and payments

- 2.1 The Authority's Engineer may inspect the Project at any time, but at least once every month, to ensure compliance with the Operation & Maintenance Requirements. It shall make a report of such inspection ("Operation & Maintenance Inspection Report") stating in reasonable detail the Defects or deficiencies, if any, with particular reference to the Operation & Maintenance Requirements, the Operation & Maintenance Manual, and the Operation & Maintenance Programme, and send a copy thereof to the Authority and the Contractor within 10 (ten) days of such inspection.
- 2.2 After the Contractor submits to the Authority's Engineer the Monthly Operation & Maintenance Statement for the Project pursuant, the Authority's Engineer shall carry out an inspection within 10 (ten) days to certify the amount payable to the Contractor. The Authority's Engineer shall inform the Contractor of its intention to carry out the inspection at least 3 (three) business days in advance of such inspection. The Contractor shall assist the Authority's Engineer in verifying compliance with Operation & Maintenance Requirements.
- 2.3 For each case of non-compliance of Operation & Maintenance Requirements as specified in the inspection report of the Authority's Engineer, the Authority's Engineer shall calculate the amount of reduction in payment in accordance with the formula .
- 2.4 Any deduction made on account of non-compliance will not be paid subsequently even after establishing the compliance thereof. Such deductions will continue to be made every month until the compliance is procured.

3. Tests

For determining that the Project conforms to the Operation & Maintenance Requirements, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests specified by it in accordance with Good Industry Practice. The Contractor shall, with due diligence, carry out or cause to be carried out all such tests in accordance with the instructions of the Authority's Engineer and furnish the results of such tests forthwith to the Authority's Engineer.

4. Reports of unusual occurrence

The Contractor shall, during the Operation & Maintenance Period, prior to the close of each day, send to the Authority-and-the Authority's Engineer, by facsimile or e-mail, a report stating accidents and unusual occurrences on the Project relating to the safety and security of the Users and Project. A monthly summary of such reports shall also be sent within 3 (three) business days of the closing of month. For the purposes of this Clause 4, accidents and unusual occurrences on the Project shall include:

- (a) accident, death or severe injury to any person;
- (b) damaged or dislodged fixed equipment;
- (c) flooding of Water Supply Project; and
- (d) any other unusual occurrence.

5. Operation & Maintenance:

On issue of provisional completion certificate, the Operation & Maintenance of the project are to be under taken by the Executing Agency for a period of 5 (Five) years

with supply of manpower, chemicals, consumables & other repair & maintenance works including spare parts, if any. The energy charges shall be paid by the Department directly to the concerned electrical authority. Any defects/discrepancies noticed in civil, mechanical and electrical works has to be attended promptly. It is to be ensured that the quantity, quality of water and minimum residual head at the consumers end has to be maintained by the Executing Agency as per CPHEEO standard. Daily test of water samples is to be carried out by the Executing Agency. It should be ensured that the quality of clear water must satisfy the permissible limit as per IS:10500& its latest amendments if any. The entire project needs to be operated upto 20Hours per day.

6 Works to be performed for Operation & Maintenance:

6.1 Source & Intakes

- i. Monitoring of inflows, Drawls, Quality of Raw Water shall be assessed.
- ii. It should be ensured that sufficient water level is maintained at Head Works in order to ensure drawl of required quantity water into intake works.
- iii. All damages to structural components of intake works particularly during flood should be promptly repaired.
- iv. All raw water holding structures such as leading channel, intake well should be desilted during and immediately after monsoon to remove settled silt.
- v. A schedule of painting of steel and other structural parts of the intake works should be prepared and followed.
- vi. All intake strainers shall be cleaned at frequent intervals particularly during monsoon to prevent entry of floating materials.
- vii. The pump house, compound wall (including doors, windows: window grills maingate etc.), RCC , all structure of WTP/UGR/OHR, shall be painted at the end of second year and fifth year of O&M period by the approval as per IS specifications and direction of E-I-C.
- viii. The bidder shall ensure cleaning of OHT's/ sumps, Clariflocculator, WTP etc., at regular intervals as per CPHHEO guidelines.
- ix. The bidder's liability during O&M period shall be upto the FHTC.

6.2 Transmission systems

The transmission mains would include raw/treated water pumping as well as gravity mains from source to treatment works, treatment works to clear water reservoirs in the distribution system.

A) All pipes

- i) Sufficient stock of spare pipes and specials and jointing materials should be maintained for replacement of damaged pipes.
- ii) Performance of Sluice valves, air valves, expansion joints, etc. shall be monitored regularly
- iii) Regular leak detection surveys should be undertaken particularly for bursting of pipes and leaked joints.
- iv) A detailed record of breakdowns and leaks observed and repaired should be maintained section wise so that more vulnerable lengths could be identified and special measures to repair/replace them could be undertaking.
- v) A regular schedule of inspection and attendance to all valves including air and scour valves should be drawn up and the same followed scrupulously , special attention should be given to all the valves.

B) M.S pipes laid above ground

- I) Pipes should be painted atleast once in 05 years to prevent corrosion.
- II) Appurtenances such as sluice valves, air valves, expansion joints, roller should be checked, cleaned atleast twice a year and worn out parts replaced. The cleaning and lubrication of rollers should be also be done twice a year, preferably pre and post monsoon.
- III) Expansion joints should be inspected every month
- IV) The catch drains provided for the portion of water mains laid in cutting should be cleaned before onset of monsoon so that no water accumulates in the cutting portion, resulting in uplift pressure on pipes.

6.3 Water treatment plant

The person in charge of the maintenance and operation of water treatment plants should have thorough knowledge of the functions of the several units under his control should be a position to bring to the notice of the concerned Engineer-in-charge any faults in design and execution giving rise to problems during the course of operation and rectify them immediately.

The maintenance program should observe the following general rules

- a) Keep a set of plans giving details' of the several units and indicating the layout and position ' of all pipe lines and appurtenances.
- b) Establish a systematic plan of daily operations. ·
- c) Establish a routine schedule for inspection of machinery and lubrication and maintain records thereof Instructions for lubrication, the type of lubricant suggested and the frequency of lubrication should be drawn out.
- d) Main data and record of each piece of equipment replacement of worn parts and other data of importance on faulty operating conditions.
- e) Keep a record of analysis of water collected at various points from the source to the distribution system and observation on the effect of such quality on the several units of operation.

6.3.1 Chemical feeding unit

- i) Annual painting alum tanks by anti-corrosive paints.
- ii) Cleaning of V notch weirs and floats
- iii) Keeping adequate Spares for mixing unit
- iv) Inspect jar test facilities

6.3.2 Flash mixer

- i) Periodical painting with anti-corrosive paint.
- ii) Keeping adequate Spares for flash mixer.

6.3.3 Clariflocculators

- i) Annual Overhauling and repainting a month or two prior to monsoon.
- ii) Free of chokage of sludge lines.
- iii) Free movement of telescopic sludge device
- iv) Check for Alignment of wheels-rubber wheels may be replaced if required.

- v) Control of biological growth on weir.
- vi) Efficiency of various units.
- vii) Lubricating mechanical devices
- viii) Checking oil
- ix) Cleaning of dust
- x) Repair, maintenance and replacement if required of following equipment.

6.3.4 Rapid gravity filters

- i) Daily Check for water quality at various stages, chemical dose, washing of filters, adequate depth of water over filter media, performance of filter regarding output and back wash.
- ii) Note the readings regarding Quantity of water received, wasted, filtered water produced, wash, pressure gauge reading at blower, rate of filtration
- iii) Performance of blower
- iv) Uniform washing of bed by air and water
- v) Check the surface of filter media for cracks, incrustation of media, mud balls **slime** growths, sand boils, bumping of filter beds, air binding, inadequate media on filter bed
- vi) Status of functioning of: Instrumentation, Valves, Blowers, gauges.
- vii) Check for corrosion of all underwater equipment

6.3.5 Chlorinators

- i) Daily Recording of dosage of chlorine and Residual chlorine
- ii) Proper functioning of rotameter & rate setter
- iii) Check for leakage, signs of corrosion, spare cylinders
- iv) Availability of adequate stock of chlorine gas cylinders and spares
- v) Check the incoming water lines, solution, feeder lines, ventilation of chlorine house structural safety of chlorine house.
- vi) The chlorinators should be maintained properly. If the unit is out of order, the same should be repaired quickly and be recommissioned.
- vii) The gas piping and feeders should be completely dismantled every one or two years to clean out accumulated impurities.

6.3.6 MAINTENANCE AND REPAIRS OF ELECTRICAL EQUIPMENT'

i) CONSUMABLES

Adequate stock of lubricating oil and transformer oil should be maintained.

ii) REPLACEMENT SPARES

To avoid downtime, stock of fast moving spares and of spares likely to be damaged by short circuit should be maintained. A set of recommended spares for

two years of trouble free operation should be kept.

6.3.7 TOOLS AND TEST EQUIPMENTS

Tools such as crimping tools, soldering, brazing and usual electrical tools should be available.

6.3.8 PREVENTIVE MAINTENANCE-

As preventive maintenance, a schedule for the maintenance of the equipment shall be followed. The schedule covers recommendations for checks and remedial actions, to be observed at different periodicities such as daily, monthly, quarterly, semiannually, annually and bi-annually.

6.3.8.1 DAILY

(i) For Motors

(a) Check bearing temperatures

(b) Check for any undue noise or vibration

(ii) For panel, circuit-breaker, starter;

(a) Check the phase-indicating lamps

(b) Note readings for voltage, current, frequency etc

(c) Note energy meter readings

(iii) For transformer substation

(a) Note voltage and current readings

6.3.8.2 Monthly

(i) For motor: nothing special other than the daily checks

(ii) For panel circuit breaker, starter

(a) Examine contacts of relay and circuit breaker. Clean, if necessary.

(b) Check setting of over-current relay, no volt coil and tripping mechanism and oil in the dashpot relay.

(iii) For transformer substation:

(i) Check the level of the transformer oil.

(ii) Check that the operation of the GOD (Gang Operated Disconnecter) is okay.

(iii) Check contacts of GOD and of over-current (OC) relay.

(iv) Check temperatures of the oil and windings.

(v) Clean radiators to be free of dust and scales.

(vi) Pour 3 to 4 buckets of water in each earth-pit.

6.3.8.3 Quarterly Maintenance

For motor:

(i) Blow away dust and clean any splashing of oil or grease.

(ii) Check wear of slip ring and brushes, smoothen contact-faces or replace, if necessary. Check spring tension. Check brush-setting for proper contact on the slip-ring.

(iii) Check cable connections and terminals and insulation of the cable near the lugs; clean all contacts. If insulation is damaged by overheating, investigate and rectify. All contacts should be fully tight.

For panel, circuit-breaker, starter, etc.:

(i) Check fixed and moving contacts of the circuit breakers/switches. Check and smoothen contacts with fine

glass-paper or file.

(ii) Check condition and quantity of oil/liquid in circuit-breaker, auto-transformer starter and rotor controller.

For transformer substation:

(i) Check condition of the H.T. bushing.

Check the condition of silica-gel in the dehydrating breather, and replace the silica-gel charge, if necessary. Reactivate old charge for reuse.

1. Motor gets overheated

- Check whether voltage is too high or too low. Change tapping of transformer, if HT supply availed. Otherwise approach power supply authorities for correction of the supply voltage.
- Check whether air ventilation passage of motor is blocked. Clean the passage.
- Check whether the motor bearings are properly lubricated or damaged. Replace the damaged bearings and provide proper lubrication.
- Check whether the cable terminals at the motor are loose. Tighten the terminals.

2. MOTOR GETS OVER LOADED: (DRAWING MORE THAN THE RATED CURRENT AT THE RATED VOLTAGE)

- Check any excessive rubbing in the pump or any clogging of the impeller passages.
- Check whether characteristics of pump (i.e. the related driven equipment) are of the overloading type.
- Check for any vortices in the sump.
- Check that there is no short-circuiting or single-phasing.
- Check whether any foreign matter has entered the air-gap, causing obstruction to the smooth running of the motor.

3. STARTER / BREAKER TRIPS

- Check whether the relay is set properly. Correct the setting, if necessary.
- Tripping can also occur if motor is drawing more than the rated current, for which details are mentioned above.
- Oil in dashpot may be either inadequate or of low viscosity.
- Check that there are no loose connections.
- Check whether the time setting of star delta or auto transformer starter is proper.

4. VIBRATION IN MOTOR

- Check for structural rigidity of supporting frame and foundation.
- Check the resonance from supporting structure or foundation or from critical speed of rotor or vibration of adjoining equipment.

5 CABLES GET OVER-HEATED

- Check whether the cable is undersized. Change the cable or provide another cable in parallel.
- Check for loose termination or joint. Fasten the termination and make proper joint.
- Check whether only a few strands of the cable are inserted in the lug. Insert all strands into the lug, if necessary.

6. PUMPS

Pumps should be operated only within the recommended range on the H-Q characteristic curve of the pump.

The maintenance schedule should enlist items to be attended daily, semi-annually, and annually as follows:

Daily Checks:

Log book should be maintained to record covering the following items, such as:

- Timing of pump running
- Observe for leakages through stuffing box
- Bearing temperature
- Any undue noise or vibration
- Readings of pressure, voltage and current

Half-Yearly Checks:

- Free movement of the gland of stuffing box
- Cleaning and oiling of gland bolts
- Inspection of the gland packing and repacking, if necessary
- Alignment of pump and drive

Annual / Periodic Checks (Contd.):

- Check clearance at wearing ring.
- Check impeller hubs and vane tips for pitting or erosion.
- Calibration of all instruments including flow meters.
- Check performance of pump (Q, H, kW and efficiency).
- Check for availability of requisite tools.
- Check for availability of lubricants and other consumables such as gland packing, bolts etc.
- Check for repair facilities such as pullers, clamps, machinery, welding set, grinder, blocks, drilling machine etc.
- Records to be kept on the Operations.
- Stock of fast moving recommended spares for two years of trouble-free operation shall be kept.

7. CLEAR WATER AND UNDERGROUND / ELEVATED SERVICE RESERVOIR

- Check for proper operation of valves, functioning of Water level indicators, lightning arrestor, functioning / cleaning of ventilators to guard against mosquito breeding and bird dropping.
- Check for corrosion of manhole covers, inter-connecting pipes, ladder and railings and replace as required.
- Cleaning of reservoirs shall be undertaken at least once in a year.
- Roofing shall be periodically checked to ensure no leakages are there.
- Check for any structural damages / leakages through the structure of reservoirs, interconnecting pipes, valves etc. Structural damages and leakage should be promptly repaired.
- Check for any possibilities of pollution of the water stored in the reservoir.
- Check for the availability of consumables, spares and tools.
- General cleanliness in around the reservoirs should be maintained.

8. CHECKS TO BE CARRIED OUT IN THE DISTRIBUTION SYSTEM

- Check for leakages in pipes, valves, appurtenances, gland bolts etc. shall be made at regular intervals.
- Inspect for any possibilities of pollution of water in the distribution system.
- Spares for valves and pipes and jointing materials shall be kept.
- Special inspection of pipe lines through marshy or high water table areas, crossing across channels, pipes etc. and in the vicinity of sewers shall be carried out at regular intervals.
- A regular programme of leak detection of entire distribution system shall be made at least once in three years. Leaks and damages detected shall be promptly repaired.

9. CONTROL OF QUALITY OF WATER

The physical, chemical, pesticides, heavy metal and bacteriological tests of water samples are to be carried out at frequent intervals as per direction of Engineer-in-charge at source, WTP and distribution system.

Taste & Odour Control:

It shall be made as per CPHEEO Manual.

Note:

1. Any item or any provision/requirement if not included in this section, but is necessary to be provided for completion of the project and for its functional necessity, the same shall be provided by the contractor. No extra payment shall be admissible on this account.
2. The above mentioned scope of work are indicative only. All ancillary items required to make the water supply system technically feasible & functional is to be provided by the bidder within the quoted amount.

SECTION 7

FORCE MAJEURE

SECTION-7

FORCE MAJEURE

1. Force Majeure

As used in this agreement, the expression “**Force Majeure**” or “**Force Majeure event**” shall mean occurrence in India of any or all of Non-political event and political event, Indirect political event and political event, as defined in clauses 2, 3 and 4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “Affected Party”) of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

2 Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

- (a)** act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- (b)** strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Water Supply Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 30 (thirty) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 3;
- (c)** any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- (d)** any judgement or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority;
- (e)** the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or
- (f)** any event or circumstances of a nature analogous to any of the foregoing.

3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- (a)** an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- (b)** industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 30 (thirty) days in an Accounting Year;
- (c)** any civil commotion, boycott or political agitation which prevents construction of the Water Supply Project by the Contractor for an aggregate period exceeding 30 (thirty) days in an Accounting Year;
- (d)** any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;
- (e)** any Indirect Political Event that causes a Non-Political Event; or
- (f)** any event or circumstances of a nature analogous to any of the foregoing.

4 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of the Government or Government Instrumentality:

- (a)** Change in Law, only if consequences thereof cannot be dealt
- (b)** compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-Contractors;

- (c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;
- (d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or
- (e) any event or circumstances of a nature analogous to any of the foregoing.

5 Duty to report Force Majeure Event

Upon occurrence of a Force Majeure event, the affected party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- (a) the nature and extent of each Force Majeure Event which is the subject of any claim of relief under this section 7 with evidence in support thereof;
- (b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- (c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- (d) any other information relevant to the Affected Party's claim.

The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

For so long as the Affected Party continues to claim to be materially affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information, and such other information as the other Party may reasonably request the Affected Party to provide.

6 Effect of Force Majeure Event on the Agreement

Upon the occurrence of any Force Majeure after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the "Force Majeure Costs") shall be allocated and paid as follows:

- (a) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party on account thereof;
- (b) upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Contractor for the Force Majeure events; and
- (c) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Authority to the Contractor.

Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor's obligations is affected on account of such Force Majeure Event or its subsisting effects.

7 Termination Notice for Force Majeure Event

If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this section 7, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days to the other Party to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

8 Termination Payment for Force Majeure Event

In the event of this Agreement being terminated on account of a Non-Political Event, the Termination

Payment shall be an amount equal to the sum payable .

Provided that in the event of termination occurs during the O&M period, the Authority's Engineer shall only determine the value of works associated with O&M.

If Termination is on account of an Indirect Political Event, the Termination Payment shall include:

(a) any sums due and payable; and

(b) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for use in Construction, only if such Plant and Materials are in conformity with the Specifications and Standards;

Provided that in the event of termination occurs during the O&M period, the Authority's Engineer shall only determine the value of works associated with O&M.

If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Contractor in an amount that would be payable as if it were an Authority Default.

9 Dispute Resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

10 Excuse from Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

(a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;

(b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and

(c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

SECTION-8

PROJECT EXECUTION & SUPERVISION

Project Execution & Supervision Aspects, Contract Management Framework & Payment Schedule

A. PROJECT EXECUTION & SUPERVISION ASPECTS :

- A-1 The Bidder, who shall act as contractor for the project shall be composed of qualified and experienced experts, who can carry out all the routine construction works as a fully competent and independent unit.
- However, in preparing his proposal for the construction, the Bidder should allow for a suitable mechanism which will ensure thorough co-ordination of the design and execution teams, so that each team is at all times fully aware of the remedies to common problems used by the other team.
- A-2 **A Lead Project Engineer** on behalf of the bidder (Contractor) should be named in the contract with whom day to day interactions shall be made by the Engineer for execution and supervision of works.
- A-3 The Bidder shall provide competent personnel for the project execution and supervision who shall be managed by the Lead Project Engineer at site in performing the assignment under this contract.
- The Bidders personnel should have the required experience and expertise in conducting similar type of works with highest professional standards.
- The Bidder is required to set up the site office and make their own arrangements for the accommodation, furniture and equipment etc.
- The project execution and supervision personnel should be mobilized from the date of commencement of works by the Bidder. During the defects liability period, the Bidder would be expected to provide technical advisory services on an “as required” basis. No office set-up is expected to be provided by the Bidder.
- After award of the contract, the client expects all of the proposed personnel to be available during implementation of the contract.
- A-4 It is the duty of the Bidder (Contractor) to;
- (1) Ensure that high quality of construction is achieved;
 - (2) Ensure that all works are carried out in full compliance with the engineering design, technical specifications and contract documents;
 - (3) Check/conduct all necessary measurements, tests, and control the quality of various items of works and in accordance with the relevant code of civil and PH specification with the latest edition.

B. CONTRACT MANAGEMENT FRAMEWORK :

B-1 The execution of the works shall be governed by the Contract Management Framework (CMF)

The main features of CMF are described in the paragraphs that follow:

To administer the contracts under the project, the Employer [insert Name] will be the Contractual “**Employer**”.

The [insert name] shall be the “**Engineer**” of the project and will work as the representative of the Employer.

The Bidder shall be termed as Contractor for the project in accordance with Odisha PWD Code.

The Employer [insert name] will define the objectives of the project, and ensure that the execution is within the scope defined in the objectives.

The Employer [insert name] in particular to sanction variation orders, including variation in quantities and additional work items proposed by the Bidder, and all other items requiring specific approval from the Employer by following procedures as per OPWD code.

The Employer [insert name] shall take approval of Government in accordance with Rules of OPWD Code where ever necessary.

B-2 Duties and responsibilities of the Engineer:

The duties of the Engineer are to administer the works contract and ensure that the contractual clauses, whether related to quality or quantities of work, are respected. The duties of the Engineer include issuing of decisions; certificates and orders as specified in details in the construction contract documents. The Engineer will also co-ordinate the teams, to ensure that the technical policies are correctly and consistently implemented.

The principal responsibilities of the Engineer will be, but not be limited to, the following:

- (a) To give the order to commence the works;
- (b) To inspect Bidder's plant and equipments and recommend agmentation/rectification of deficiencies, if required
- (c) To order special tests of materials and/or completed works, and/or order removal and substitution of improper materials and/or the works as required;
- (d) Approve and/or issue working drawings including variations thereof arising out of change in design as per site requirements
- (e) Monitor and verify the correctness of the as-built' drawings supplied by the Bidder;
- (f) To monitor the progress of the works;
- (g) To review all the tests result/certificates of all construction materials and inspect sources of materials to establish their quality suitable to the required standard.
- (h) To check and certify the laboratory and field tests carried out by the Bidder and also carry out independent tests, if required. The report of such test shall be submitted to the EIC within a period of 7 days of such tests.
- (i) To issue completion certificate of part or all the works;
- (j) To inspect the works during the construction period and the Defects Liability Period, and to issue Defects Liability Certificates after rectification by the Bidder of defects notified to him by the Engineer;
- (k) To advise the Employer on all matter relating to execution of the works and claims from the Bidder, and to make recommendations thereon, including the possible resource to arbitration;
- (l) To approve the setting out the works;
- (m) To approve materials and sources of materials;
- (n) To instruct the removal from the site of materials which are not as per specifications or reconstruction of parts of the works which do not comply with the specification;
- (o) To issue monthly progress reports;
- (p) To issue interim payment certificates for works carried out by the Bidder, and certify completion of parts or the totality of the works (payments are to be recorded in the measurement book before issue of interim certificates);
- (q) To assist the Employer in providing clarification/explanation to observations made, from time to time by the Accountant General's office/Auditors.

B-3 Actions Requiring Specific approval of the Employer:

The Engineer will be required to obtain the specific approval of the Employer before taking any of the following actions:

- (a) Approving subcontracting of any parts of the Works;
- (b) Certifying additional cost;

- (c) Determining an extension of time;
- (d) Issuing a variation order, except
 - (i) In an emergency situation, as reasonably determined by the Engineer as per OPWD code
 - (ii) When there is no financial impact;
- (e) Fixing rates or prices;
- (f) Approving programme for execution of works; and,
- (g) Suspension of works.

B-4 Duties & Responsibilities of the Lead Project Engineer:

The duties of the Lead Project Engineer of the bidder (Contractor) are, to supervise construction of the works and, to test and examine any material to be used or workmanship employed in connection with the works. The principal responsibilities of the Lead Project Engineer of the bidder (Contractor) are likely to be as follows:

1. To ensure that the construction work is accomplished in accordance with the technical specifications and Contract Conditions.
2. To identify construction problems and delays and to recommend to the Engineer, actions to expedite progress
3. To ensure proper keeping of records
4. To monitor and check the day-to-day quality control and quantity measurements of the work carried out under the Contract and prepare the monthly payment certificates.
5. To prepare in consultation with the Employer, a Construction Supervision Manual outlining routine and procedures to be applied in contract management, construction supervision and administration;
6. To prepare a maintenance manual outlining the routines to be adopted in each specific reach;
7. To comply with his contractual obligations in executing work in all matters concerning safety and care of the works (including the erection of temporary signs) and, if required, to request the Bidder to provide any necessary lights, guards, fencing and watchmen for smooth and effective working and traffic flow.
8. To write a day-by-day project diary which shall record all events pertaining to the administration of the contract, request forms and orders given to the Bidder, and any other information which may at a later date be of assistance in resolving queries which may arise concerning execution of the works;

C. Data, Services and Facilities to be provided by the Employer :

Attention is drawn to the following which are **not provided by the Employer** and are to be arranged by the Bidder at his own cost.

The Government of Odisha will not provide office accommodation. The Bidder shall make his own office accommodation arrangements for their office staff for each of the field supervision teams including furniture, equipment, operation and maintenance.

The Government of Odisha will not provide project vehicles to the Bidder. The Bidder shall make his own arrangements in respect of vehicles. The Bidder shall ensure that vehicles for the team are of good makes and are of excellent working condition.

The Bidder shall be responsible for making his own arrangements for survey equipment.

The Bidder shall be responsible for making his own arrangements for communications.

Site Laboratories: The site laboratories (including furniture, equipment, running and maintenance) shall be provided by the Bidder, the cost of which is inclusive in this turn-key contract. The laboratory equipment shall be as specified and as required by the Engineer.

D-1 Reporting Requirements:

The Lead Project Engineer of the bidder (Contractor) in charge of the PWS wrk site shall prepare and submit to the Engineer five copies each of the following reports:

- (i) Monthly Reports:** The Lead Project Engineer of the bidder (Contractor) shall, no later than the 10th of each month, prepare a brief progress report summarizing the progress of the construction contract. The report shall outline any problem encountered (administrative, technical or financial) and give recommendations on how these problems may be overcome. The report should record the status of payment.
- (ii) Quarterly/Annual Reports:** The Lead Project Engineer of the bidder (Contractor) shall prepare a comprehensive report summarizing all activities annually. Such reports shall summarize the progress of the Contract, all contract variations and change orders, the status of Bidder claims, if any, brief descriptions of the technical and contractual problems encountered and Engineer's/Employer's suggestions on how to overcome those, financial status of the Contract as a whole consisting of the costs incurred and costs forecast, as well as financial plan (by the Employer) and other relevant information for the ongoing Contract.
- (iii) Sectional/Final Completion Report:** The Lead Project Engineer of the bidder (Contractor) shall prepare a comprehensive Final Completion Report for the Contract when it reaches a stage of substantial completion during the period of the services. Completion Reports must also be submitted immediately after the taking over of each Section or part of the Permanent Works. The Reports shall summarize the method of construction and supervision and recommendations for future projects of similar nature to be undertaken by the employer.

Besides the above, five copies each of Construction Supervision and Maintenance Manuals are to be submitted along with the Final Completion Report.

D-2 Documents prepared shall be the property of the Employer:

All plans, drawings, specifications, designs, reports and other documents (both computer hard copies and soft copies) prepared by the Bidder in performing the works shall become and remain the property of the Employer, and the Bidder shall not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Bidder may retain a copy of such documents but shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client.

E-1 Procedure for Payment:

The Bidder shall submit all bills to the Engineer who will process the bills for payment after due scrutiny of work actually completed including their quality.

ANNEXURE VII
Check Lists for Operation and Maintenance

1 Transmission

- i) Check for stock of spare pipes and specials and jointing materials for replacement
- ii) Performance of Sluice valves, air valves, expansion joints, rollers
- iii) Leak detection surveys
- iv) Inspect record of break downs and to identify vulnerable lengths for special attention

2. Motors

Daily checks

- i) Eliminate dirt (Less than 1000 KVA)
- ii) Anti-moisture precautions
- iii) Oiling and greasing to avoid friction
- iv) Check for vibration
- v) Check for tightness of contacts
- vi) Operation at rated voltage
- vii) Check tripping elements to offer protection
- viii) Inspect contact points for any deposition
- ix) Clean the cabinet to remove dirt
- x) Check for fuse ratings
- xi) Check whether manufacturers recommendations are followed regarding
- xii) Quality of oil and grease
- xiii) Correct periodical of lubrication
- xiv) (avoid over-lubrication)
- xv) Check for performance of capacitors

3. Pumps

Daily Checks:

- i) Timing of pump running
- ii) Observe for leakages through stuffing box
- iii) Bearing temperature
- iv) Any undue noise or vibration
- v) Readings of pressure, voltage and current

Half Yearly checks

- vi) Free movement of the gland of stuffing box
- vii) Cleaning and oiling of gland bolts
- viii) Inspection of the gland packing
- ix) Alignment of pump and drive
- x) Cleaning of oil lubricated bearings/or grease lubricated and replacing oil and grease
- xi) Clean and examine all bearings for flows

Annual Checks:

- xii) Examine shaft sleeves for wear or scour
- xiii) Check clearance at wearing ring
- xiv) Check impeller hubs and vane tips for pitting or erosion
- xv) Calibration of all instruments and flow meters
- xvi) Check performance of pump Q, H, KW and efficiency
- xvii) Check for availability of required tools
- xviii) Check for availability of lubricants and other consumables such as gland packing, bolts etc.
- xix) Check for repair facilities such as pullers, clamps, machinery, welding set, grinder,
- xx) blower, drilling machine etc.
- xxi) Records to be kept on the Operations :

- xxii) Note the water levels in the SR s (for all compartments) at hourly intervals.
- xxiii) Note the time and relevant operation of control valves with time of opening and closure or throttling position of the valves.
- xxiv) Note the hourly flow meter readings both on the inlets and outlets
- xxv) Note the hourly residual chlorine readings of inflow water and outflow water
- xxvi) Record on when the structure of the reservoir was last repaired to attend to structural defects or arrest leakage and the cost of materials and labour cost thereof
- xxvii) Record on when the reservoir was last cleaned and the cost of materials and labour cost thereof
- xxviii) Record on when the reservoir was last painted and the cost of materials and labour cost thereof
- xxix) Record on when the piping at the reservoir was last painted and the cost of materials and labour cost thereof

4 Clear Water Sump and Service Reservoir (SR)

- ii) Check for proper closure of washout valves
- iii) Check for functioning of Water level indicators
- iv) Check for status of ventilators; whether Fly proof mesh over ventilators requires to be replaced
- v) Check for the status of Manhole covers; are they corroded ?
- vi) Check the water quality and find the necessity to clean and disinfect insides
- vii) Check whether the roof of SR is clean and whether the surroundings of SR are clean
- viii) Check whether the Operation of valves is smooth without any abrupt stoppage during closure
- ix) Check for leakage through valves at gland, bolts or any other place
- x) Check whether closure of a valve results in complete stoppage of flow or if any flow passes the valve (passing valve)
- xi) Check for any structural damages to the reservoir especially whether the roof is corroded due to chlorination and assess the structural soundness of the reservoir
- xii) Assess the status of ladder and railings whether corroded ?
- xiii) Check for leakage through the structure of the SR
- xiv) Check for leakage through interconnecting pipe work at the SR
- xv) Check for any signs of corrosion of interconnecting pipe work at the SR
- xvi) Inspect for any possibilities of pollution of the water stored in the reservoir
- xvii) Status of out-fall drain for scour and overflow
- xviii) Assess the need for painting of the reservoir and piping work
- xix) Assess the status of lightning arrestor where provided
- xx) Check for the availability of consumables , spares and tools

5 Checks to be carried out in the distribution system:

- i) Check whether the Operation of valves is smooth without any abrupt stoppage during closure
- ii) Check whether closure of a valve results in complete stoppage of flow or if any flow passes the valve (passing valve)
- iii) Check for status of scouring and then proper closure of washout valves
- iv) Check for leaks through pipes
- v) Check for leakage through valves at gland, bolts or any other place
- vi) Check for leaks at the appurtenances
- vii) Check for any signs of corrosion of pipelines
- viii) Check for the status of Manhole covers over the chambers; are they corroded?
- ix) Inspect for any possibilities of pollution of the distribution system water stored
- x) Status of out-fall drain for scour and overflow
- xi) Assess the need for painting of the piping work
- xii) Check for availability of spares for valves and pipes and jointing materials
- xiii) Review the method of giving consumer connections in the field
- xiv) Preparation of water budget for each zone
- xv) served by one reservoir

- xvi) Number of connections given
- xvii) Number of meters out of order
- xviii) Status of Distribution System
- xix) Review of pressures
- xx) Review of flows
- xxi) Corrosive water
- xxii) Study of inflows and outflows
- xxiii) Identify source of leakage
- xxiv) Status of bulk metering and consumer Metering
- xxv) Unauthorized connections if any
- xxvi) Review facilities for repair of consumer meters
- xxvii) Availability of updated system map

ANNEXURE-VIII
LOG BOOK

District: _____ Block: _____
Name of the PWS: _____ Name of the Pump Driver: _____

Date	Meter Reading	Morning				Evening				Shut Down if any		Signature of Pump Driver	Signature of Inspecting Officer	Remarks
		Motor "on" time	Motor "off" time	Voltage	Current	Motor "on" time	Motor "off" time	Voltage	Current	Nature of Shut Down	Nature of repair			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

ANNEXURE-IX
SYSTEM OPERATION REPORT (QUARTERLY)
CHECK LIST FOR MAINTENANCE

Name of PWS:

Name of the contractor:

District/ Division:

Block/ GP/ Village:

Date of commission of the scheme:

operation & maintenance agency:

Date of agreement:

Period of Agreement:

Name of person inspected/ reported:

Designation (not below the rank of JE/ AE):

1. Surrounding of pump house, intake well,
OHT, WTP, UGR, clean & maintain

Yes

No

2. Painting & colouring done (once a every 2 years)
Month & year of last painting done to be indicated
(Mention last date of colouring)

3. Log book attached as per template
(Pump house /WTP/Distribution)

4. Daily chemical consumption record

5. Leakage in pipeline/ SV/ NRV

i) No of leakage occurred:

ii) No of leakage repaired:

6. FHTC functionality status:

i) No of FHTC getting water @ 70 LPCD

ii) No of FHTC not getting water

7. No of stand post (Incl. Instituion):
Provided and functioning

8. Complaint status

i) No. of complaints received during the last quarter :

ii) No of complaint attended

9. Adequate pressure at the tail end in all habitation
(Mention Habitation details having pressure issue)

--

10. PWS out of order due to power failure:

Days

Years

11. PWS out of order due to mechanical & other failure:
Such as pipes damage , OHT leakage etc.

Days

Years

12. Whether all electrical equipments i.e, pumps, starter,
Flash mixer, chlorinator etc. functioning
(AE/JE to give certificate)

13. Date of cleaning of WTP:
(Frequency twice a year pre-post monsoon)

Signature of junior Engineer

Verified & found correct & recommended for payment:

Signature of SDO

Accepted for payment:

Signature of EE / SE

NB: In case AE/ AEE or SE does not agree to the report then he shall return the report to the reporting officer with reason.

**OPERATION & MAINTENANCE STAFF PATTERN MINIMUM ENGAGEMENT FOR MINI MEGA PIPED WATER SUPPLY
SCHEME TO BARGAON & ADJ. 9 VILLAGES UNDER SINAPALI BLOCK UNDER NUAPADA DISTRICT .**

Sl. No.	Description of Man Power engaged/at WTP/OGR/Rising main and distribution system	Person Required /Per day
A	Intake Well	
1	Assistant Manager/Supervisor	0
2	Pump Operator for pump house	2
3	Watchman	0
4	Water Analyst/Laboratory Assistant	0
		(A)
B	WTP	
1	Assistant Manager/Supervisor	1
2	Pump Operator for pump house, Treatment works & clear water pump.	4
3	Watchman	0
4	Water Analyst/Laboratory Assistant	0
		(B)
C	SERVICE RESERVOIR	
1	4.10 Lakh ltrs capacity ESR at Jamgaon	
	Valve Operator	1
2	1.50 Lakh ltrs capacity OGR at village Gandabahali	
	Valve Operator	1
3	1.50 Lakh ltrs capacity OGR at village Kirkita	
	Valve Operator	1
		(C)
D	DISTRIBUTION SYSTEM	
1	Command area under 4.50 Lakh ltrs capacity OGR at Jamgaon. (Command area:-4.639 KM)	
	Fitter	1
2	Command area under 1.50 Lakh ltrs capacity ESR at village Gandabahali (Command area:-14.950KM)	
	Fitter	2
3	Command area under 1.50 Lakh ltrs capacity ESR at village Kirkita (Command area:-32.006KM)	
	Fitter	3
4	Command area under 2.00 Lakh ltrs capacity ESR at village Sunarisikuan. (Command area:-15.500KM)	
	Fitter	1
		(D)
NB:- The above requirement is the minimum strength , contractor should engage manpower as per site requirement /CPEEHO manual but not less than the number of manpower listed above		

**OPERATION & MAINTENANCE STAFF PATTERN MINIMUM ENGAGEMENT FOR MINI MEGA PIPED WATER SUPPLY SCHEME
TO LITIGUDA & ADJ 10 VILLAGES UNDER SINAPALI BLOCK IN THE DISTRICT OF NUAPADA .**

Sl. No.	Description of Man Power engaged/at WTP/OGR/Rising main and distribution system	Person Rrequired /Per day
A	Intake Well	
1	Assistant Manager/Supervisor	0
2	Pump Operator for pump house	3
3	Watchman	0
4	Water Analyst/Laboratory Assistant	0
		(A)
B	WTP	
1	Assistant Manager/Supervisor	1
2	Pump Operator for pump house, Treatment works & clear water pump.	3
3	Watchman	0
4	Water Analyst/Laboratory Assistant	0
		(B)
C	SERVICE RESERVOIR	
1	2.70 Lakh ltrs capacity ESR at Gbantiguda	
	Valve Operator	1
2	1.60 Lakh ltrs capacity OGR at village Nuapada	
	Valve Operator	1
		(C)
D	DISTRIBUTION SYSTEM	
1	Command area under 4.50 Lakh ltrs capacity OGR at Gbantiguda. (Command area:-54.117 KM)	
	Fitter	7
		(D)
NB:- The above requirement is the minimum strength , contractor should engage manpower as per site requirement /CPEEHO manual but not less than the number of manpower listed above		

**OPERATION & MAINTENANCE STAFF PATTERN MINIMUM ENGAGEMENT FOR MINI MEGA PIPED WATER SUPPLY
SCHEME TO CHHOTADARLIPADA & ADJ. 05 VILLAGES UNDER SINAPALI BLOCK UNDER NUAPADA DISTRICT FOR
FIVE YEARS AFTER COMPLETION OF O&M PERIOD**

Sl. No.	Description of Man Power engaged/at WTP/OGR/Rising main and distribution system	Person Rrequired /Per day
A	Intake Well	
		0
1	Assistant Manager/Supervisor	1
2	Pump Operator for pump house	0
3	Watchman	0
4	Water Analyst/Laboratory Assistant	(A)
B	WTP	
		0
1	Assistant Manager/Supervisor	2
2	Pump Operator for pump house, Treatment works & clear water pump.	0
3	Watchman	0
4	Water Analyst/Laboratory Assistant	(B)
C	SERVICE RESERVOIR	
1	1.15 Lakh ltrs capacity ESR at Saradhapur	1
	Valve Operator	
2	0.50 Lakh ltrs capacity ESR at village Khairpadar	1
	Valve Operator	
3	0.60 Lakh ltrs capacity ESR at village Khairpadar	1
	Valve Operator	
3	0.30 Lakh ltrs capacity ESR at village Khairpadar	1
	Valve Operator	(C)
D	DISTRIBUTION SYSTEM	
1	Command area under 3.00 Lakh ltrs capacity OGR at Chhotadarlipada. (Command area:- 8.412 KM)	2
	Fitter	(D)

NB:- The above requirement is the minimum strength , contractor should engage manpower as per site requirement /CPEEHO manual but not less than the number of manpower listed above

PROJECT SYNOPSIS

- Sl.no Description of work Details
- 1 Name of project PWS to Chotdarlipada and Adj. villages under Sinapali block in the district of Nuapada.
- 2 AA Details Letter no. 7881
Cost Rs. 808.29 Lakhs
Date Dt. 29-12-17
- 3 Village and Habitation wise population covered

Sl.no	GP	Village	Habitation	Population(2011 census)	FHTC provided
1	KAINTPADAR	DARLIPADA	DARLIPADA	420	116
			HERNAPADA	97	26
			PODPADA	102	29
		KAINTPADAR	HARIJANPADA	66	20
			KAITHAPADAR	685	165
			MAJHIPADA	106	34
			SCHOOLPADA	20	4
			BHAISADANI PADA	15	5
2	CHINDAGUDA	KHAIRPADAR	BHALUKHOLPADA	69	18
			BHOIPADA	30	7
			CHHATRIAPADA	51	13
			KHAIRBHADI	485	137
			MAJHIPADA	272	73
			SANAPADA	15	5
			BAIJOEPADA	22	6
			BANBASIPADA	15	5
3	Khairabhadi	SARDHAPUR	BASTI UPPERPADA	45	13
			JOEPADA	22	6
			KATLIBADI (TALPADA)	48	13
			LOHARAPADA	19	5
			MAJHIPADA	61	16
			SARDHAPUR	258	77
			THIPAKHOLPADA	72	18
			DONGARGAON	213	50
4	NUAMAHULPADA	DANGARGAON	TALPADA	27	6
			UPPERDPADA	31	7

- 4 Source Type Surface source at Udanti river
Intake well motor capacity 30 HP

5 Rising main

SI no	Pipe material	Pipe diameter	length in meter
1	DI	100 mm	3581
		150 mm	3404
		200 mm	1360
2	DI D/F	100 mm	67
Total			8412

- 6 ESR/UGR

Sl.no	Location	Capacity	Height	Name of Villages(Distribution area)
1	khairpadar	50 KL		khairpadar
2	khairpadar	50 KL	12 m	Dangargaon
3	saradhapur	40 KL	20 m	saradhapur
				Kaintpadar
4	Kaintpadar	50 KL		Darlipada

7

Distribution Network

Distribution Network			
Sl no	Pipe material	Pipe diameter	length in meter
1	CI	80 mm	21254
		100 mm	674
		125 mm	1275
		150 mm	227
		200 mm	90
Total			23520

PROJECT SYNOPSIS

Sl.no	Description of work	Details
1	Name of project	PWS to Litiguda and Adj. villages under Sinapali block in the district of Nuapada.
2	AA Details	Letter no. 7881
	Cost	Rs. 1496.00 Lakhs
	Date	29-12-17
3	Village and Habitation wise population covered	

sl.no	GP	Village	Habitation	Population(2011 census)	FHTC provided
1	BHARUAMUNDA	GOVINDPUR	GOVINDPUR	889	225
			PUJHARIPADA	140	5
2	GHANTIGUDA	GHOTUGUDA	BAGPADA	211	66
			BAGPADA ROADSIDE	33	12
			BHOIPADA	266	88
			DARLIPADA	85	21
			GHANTIGUDA	396	129
			KATAPADA	106	33
			NAGPADA	66	12
			POKHANMUNDIPADA	37	10
			THELAPADA	85	22
			KARLAPANI	336	64
		NANDAGAON	NANDIGAON	517	119
		SARDHAPUR	COLONYPADA	65	17
			HANSPADA	121	33
			SANPADA	231	62
			SARDHAPUR	402	102
3	HATIBANDHA	DHUNGIAMUNDA	BALAPADA	24	7
			DANGARPADA	75	20
4	LITIGUDA	KOKPADAR	DHINGIAMUNDA	449	135
			MAJHIPADA	123	33
			BADUNPANI	153	42
			BADUNPANI MAJHIPADA	13	4
			KOKPADAR	590	171
		LITIGUDA	PODPADA	45	13
			COLONYPADA	175	44
			JHARIAPADA	258	62
			JHARIAPADA (TALPADA)	23	4
			LITIGUDA	1,094	267
			MAKAD DAM PADA	195	49
			MAKARDAMPADA(UPPERPAD	35	8
			NARIAPADA	39	8
		GUALPANI	NARIAPADA	239	69
			GUALPANI	204	55
			ARSHAPADA	64	16
			ARSHAPADA (BAGADIAPADA)	14	3
			ARSHAPADA (HARDAPADA)	17	5
			ARSHAPADA (KAPSIAPADA)	15	5
			ARSHAPADA (PAHARIAPADA)	14	3
			ASHAPADA(MAJHIPADA)	20	3
			BISIPADA	14	3
			DONGRIPADA	355	93
			GAMBHARIGUDA		

5	NUAPADA	NUAPARA	GAMBHARIGUDA (BAHALPAD)	20	5
			GAMBHARIGUDA (DANDASEN)	24	5
			GAMBHARIGUDA (DARLIPADA)	15	5
			GAMBHARIGUDA (MILLPADA)	40	11
			GAMBHARIGUDA (NAGPADA)	30	5
			GAMBHARIGUDA BISIPADA	29	3
			GAMBHARIGUDA(BASTIPADA)	14	4
			KENDUGUDA	29	5
			KENDUGUDA (MAJHIPADA)	23	5
			KENDUGUDA (MAKADAMPADA)	47	4
			KENDUGUDA (PAHARIAPADA)	32	3
			NAGPADA	14	5
			NUAPADA	533	137
			PALSAPADA	284	71
			PITHAPADA	165	44
		PATIALPARA	PITHAPADA (AMPADA)	33	11
			PITHAPADA (BANDHPADA)	42	11
			PITHAPADA (MALIPADA)	22	5
			DHARUAPADA	54	14
			KAPUPADA	45	12
			KURLAPADA	90	23
			MAHULPADA	18	3
			MAJHIPADA	19	3
			PATIALPADA	125	32
			POTAPADA	30	7
			SCHOOLPADA	33	8
			UPPERPADA	14	3
		SANDHIBAHALI	SINDHIBAHALI	85	20

Source

Type Surface source at Udanti river

Intake well motor capacity 25 HP- 2 nos

RWRM

Sl.no	Pipe material	Pipe Diameter	length
1	DI-K9	200 mm	3090 m

WTP

capacity	2.0 MLD
Structural details	
Cascade aerator	5.61 m DIA
RWC	7.5 M(approx)
HBCF	17.64X4.85 m
Sedimentation tank (size)	11.35X3.75 m each of 2 no.s
Filter house	
No of bed	2 single bed
Bed size	each single bed 2.55X3.3 m
Annex building	25 sqm(3.6x7.0 m)
Back wash tank	60 Cum
Chemical house	30 sqm (8.6x3.5 m)
Pump capacity	0.5 HP- 4 nos
Rapid mix	6.0x1.55 m
CWR capacity	400 KL

office and lab 35 sqm
 Chlorine house 16 sqm(4x4 m)
 Pump house 25 sqm(6.25x4 m)
 motor capacity Two 10 HP , two 15 HP
 UGR capacity- 400 KL
 motor capacity 3 HP
 CWRM

SI no	Pipe material	Pipe diameter	length
1	DI-K9	150 mm	10580 m

ESR/UGR

SI.no	Location	Capacity	Height	Name of Villages(Distribution area)
1	ESR Ghantiguda	270 KL	16 m	Nadigaon
				saradhapur
				karlapani
				ghantiguda
				Dhingiamunda
2	ESR Phatialpada	160 KL	15 m	Nuapada
				gualpani
				Arsapada
				phatialpada
				Pithapada
				Gambhariguda
				palsapada
				Sandhibahali
				potapada
3	UGR litiguda	100 KL		litiguda
				Kokpadar

Distribution Network

Distribution Network			
SI no	Pipe material	Pipe diameter	length in meter
1	DI	100 mm	35668
		150 mm	8120
		200 mm	9590
		250 mm	714
		300 mm	25
			54117

PROJECT SYNOPSIS

Description of work
Name of project

Details
PWS to Baragaon and Adj. villages under
Sinapali block in the district of Nuapada

AA Details
Cost
Date

Letter no. 7881
1767.00 lakhs
29-12-17

Village and Habitation wise population covered

sl.no	GP	Village	Habitation	Population (2011)	FHTC provided
1	Kirkita	1. KIRKITA	ADIVASICOLONY	61	12
			DHARUPADA	227	71
			GORLAPADA	135	40
			KIRKITA	725	231
			LOHRAPADA	39	10
			MAJHIPADA	93	20
			MALPADA	67	20
			RENGTAPADA	30	8
			SANA GURUJIPADA	92	16
				114	29
2	Sunari Sikuan	2. SIKUAN(KHURD)	KHURDSIKUAN	50	15
		3. SUNARISIKUAN	BANDHPADA	179	56
			BHAISALPADA	214	67
			CHINDAPADA	41	15
			COLONYPADA	60	16
			GURUJIBHATA	52	15
			LAXMIPUR (WAY TO KANPUR)	60	16
			MAKARDAMPADA	729	240
			SUNARISIKUAN	182	58
			BUTOPALI	105	33
3	BARGAON	4. BOTOPALI	CHAMARAPADA	125	36
		5. SALEKELA	TENTULIPADA	104	26
			BANDHPADA	118	32
			BHOIPADA	69	18
			CHINDAPADA	94	26
			KENDUMUNDA	27	8
			MAHIMAPADA	37	10
			MAJHIPADA	14	2
			MANDIRPADA	69	18
			NIALPADA	467	129
4	GANDABAHALI	6. GAMBHARIGUDA	SALEKELA	75	20
			BELPATIBAHAL	46	12
			BELPATIBAHAL II	28	8
			COLONYPADA	18	4
			DASPADA	10	4
			DUNGARPADA	1,352	365
			GAMBHARIGUDA	39	8
			GURUJIBHATAPADA	52	11
		7. GANDABAHALI	COLONYPADA	2,212	535
			GANDABAHALI	29	5
			RATALUBHATAPADA	72	20
8. MUNDAPALA			BHOIPADA		

5	BARGAON	9. RAMPUR	DANGARITALPADA	17	3
			GURUJIBHATAPADA	52	13
			MALIPADA	35	9
			MUNDAPALA	526	155
			LOHRAPADA	63	14
			RAMPUR	43	10
		10. BARAGAON	BAHALPADA	87	20
			BARGOAN	2,963	778
			CHINDAPADA	52	10
			CHUNCHUNIPADA	90	20
			HARIJANPADA	169	40
			JAMGAON NUAPADA	35	10
			JAMGAON(MAHULPADA)	32	10
			KATAPADA	118	30
			LIMPADA	135	30
			MAHIMAPADA	63	20
			MISTRYPADA	34	10
			SAHUPADA	174	40

Source

Type

Surface source at Udanti river

Intake well motor capacity

15 HP- 2 nos

RWRM

Sl.no	Pipe material	Pipe Diameter	length
1	DI-K9	200 mm	1240 m

WTP

capacity

2.4 MLD

Structural details

Cascade aerator

5.61 m DIA

RWC

7.5 M(approx)

HBCF

17.64x4.85 m

Sedimentation tank (size)

12.25x4.10 m each of 2 no.s

Filter house

No of bed

2 single bed

Bed size

each single bed 2.80x3.6 m

Annex building

25 sqm(3.5x7.3 m)

Back wash tank

7 Cum

Chemical house

30 sqm (8.6x3.5 m)

Rapid mix

6.0x1.55 m

CWR capacity

500 KL

office and lab

35 sqm

Chlorine house

16 sqm(4x4 m)

Pump house

25 sqm(6.25x4 m)

CWRM

Sl no	Pipe material	Pipe diameter	length
1	DI-K9	150 mm	6690
		200 mm	2875
Total			9565

ESR/UGR

Sl.no	Location	Capacity	Height	Name of Villages(Distribution area)
1	In WTP plant	275 KL	15 m	Baragaon
2	Baragaon(ESR)	410 KL	18 m	Baragaon
				Salekela
				Pariabahal
				Jamgaon
				Mahulpada
				Gandabahali
3	kirkita(ESR)	160 KL	15 m	kirkita
4	UGR sunarisikuan	200 KL		Sunarisikuan
				Khurdsikuan

Distribution Network

Distribution Network			
Sl no	Pipe material	Pipe diameter	length in mm
1	DI	100 mm	47566
		150 mm	14950
		200 mm	3065
		250 mm	1344
		300 mm	3174
		350 mm	71
		400 mm	50
		Total	70220

SECTION-9**CHECKLIST OF DOCUMENTS TO BE FURNISHED BY THE BIDDER**

Name of the Work (INSERT THE
SCHEME NAME)

Sl. No	Particulars	Reference to Clause no.	Whether furnished		Reference to Page no.
			Yes	No	
01.	Cost of tender paper	As per NIT			
02.	E.M.D	DTCN Clause			
03.	Copy of valid Registration Certificate (CDMS Certificate)	DTCN Clause			
04.	Copy of GST Registration Certificate	DTCN Clause			
05.	Copy of PAN Card	DTCN Clause			
06.	No Relationship Certificate	DTCN Clause			
07.	CA Certificate with UDIN NO	DTCN Clause			
08.	Works Experience -	DTCN Clause			
(a)	List of similar works executed during last 5 years	DTCN Clause			
09. (a)	Information regarding current litigation, debarring / expelling of the tender or abandonment of the work by the tenderer (No Litigation Certificate)	DTCN Clause			