



**Government of Odisha,
Panchayati Raj & Drinking Water
Department**

**OFFICE OF THE SUPERINTENDING ENGINEER,
Rural Water Supply & Sanitation Division, Phulbani**

TEL (06842) 253314 Fax :- (06842) 251276 E-mail:- eerwss_plb@nic.in

INVITATION FOR BIDS (IFB) IDENTIFICATION NO.RWS&S DIVN. PHULBANI-

DETAILED BID DOCUMENT

FOR THE WORK

Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50000 ltr to 100000 ltr with 5 years operation and maintenance for RPWS scheme to village Jajespanga and Ladadi under Phiringia Block in the district of Kandhamal.

Panchayati Raj and Drinking Water Department.

GOVERNMENT OF ODISHA

..... PROJECT

AGREEMENT NO.....

NATIONAL COMPETITIVE BIDDING

(PWS WORKS ON TURN KEY BASIS WITH DESIGN & EXECUTION)

NAME OF WORK : **Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50000 ltr to 100000 ltr with 5 years operation and maintenance for RPWS scheme to village Jajespanga and Ladadi under Phiringia Block in the district of Kandhamal.**

PERIOD OF SALE OF BIDDING DOCUMENT : FROM 12.00 hours
of 24.06.2026
TO 1.30 hours of 17.07.2026

LAST DATE AND TIME FOR RECEIPT OF BIDS : DATE 17.07.2026 TIME 1.30 HOURS

*TIME AND DATE OF OPENING BIDS : 11.00 hours of 18.07.2026

PLACE OF OPENING OF BIDS : OFFICE OF THE SUPERINTENDING ENGINEER, RWS&S DIVISION,
PHULBANI

OFFICER INVITING BIDS SUPERINTENDING ENGINEER, RWS&S DIVISION, PHULBANI

**Should be the same as per the receipt of bids or promptly there after :*

SECTION 1
INSTRUCTION TO
BIDDERS (ITB)

A. GENERAL INSTRUCTIONS

1. Scope of Bid

The **Superintending Engineer, RWS&S Division, PHULBANI** State of Odisha through **National Competitive Bidding** invites bids for the PWS works namely **“Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50000 ltr to 100000 ltr with 5 years operation and maintenance for RPWS scheme to village Jajespanga and Ladadi under Phiringia Block in the district of Kandhamal.”** on turnkey basis with design & execution and maintenance thereafter. (As defined in these documents and referred to as “the work”)

The successful bidder will be expected to complete the works by the intended completion date specified in the Contract.

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

The expenditure on this project shall be met from the budget Govt. of Odisha/India. **(Insert funding scheme/source of fund)**

3. Eligible Bidders

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 similar nature of works and ***Installation & Commissioning Packaged Water Treatment Plant*** in particular. Bidders are advised to note the minimum qualification criteria specified in the “Instruction to Bidders” to qualify for the award of contract.

A Bidder shall be deemed to have the nationality of India.

Government-owned enterprises shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law.

Registered Contractor of Odisha State PWD or equivalent class of CPWD / Railway / MES / Central or other State Govt./ (Authorised Distributor / Authorised Dealer) 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.

Additional performance Security shall be obtained from the 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 deposit by the successful bidder when the bid amount is less than the estimated cost put to tender 5% is nil , above 5% and below 10% to the extent of 50% and from 10% and above is 150% of the differential cost of the bid amount in shape of NSC/ KVP/ Post office saving Bank Account/ Post Office time deposit Account/ Bank guarantee from any nationalized/ Scheduled bank in India counter guarantee by its local branch at Bhubaneswar, e-Bank guarantee executed on the National e-Governance Services Limited (NeSL) Digital document execution Portal within seven days of issue of letter of acceptance (LOA) by the Superintending Engineer RWS&S Division, Phulbani (by e mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the security deposit / EMD shall be forfeited. Further proceeding for blacklisting shall be initiated against bidder.” (as per the Government of Odisha, Works Department Office Memorandum No.14299 dated 03.10.2017 & No. 14459(W) Dt. 20.9.2018 on amendment of Para No. 3.5.5.(V), Note-II of OPWD Code Vol-I) and office Memorandum No. 4559 Dated 5.4.2021 of Works Department.

3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices.

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.

The Contractor has to furnish a declaration that no near relatives are working in the cadre of an Assistant Engineer/ Assistant Superintending Engineer and above in Rural Water Supply & Sanitation (RWS&S) of State of Odisha.

4 **Qualification of the Bidder (Test of Responsiveness)**

Prior to evaluation of bids, the Authority shall determine whether each bids 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) Certificate from the Chartered Accountant specifying the financial turnover for the years to be taken into consideration as per Annexure-I;
- (f) It does not contain any condition or qualification; and
- (g) It is not non-responsive in terms hereof.

The bidders shall submit the following information and necessary documents along with their bids as per the formats provided in Section 2:

- a) Copies of original documents defining the constitution or legal status, place of registration and principal place of business; written power of attorney of the signatory of the bid to commit the Bidder;
- b) Financial Turnover of the bidder during last five financial years as per Annexure-I.
- c) Experience in PWS works of **Similar nature undertaken during last five financial years**, and clients who may be contacted for further information on those contracts; **Work experience certificate should be furnished in the format of Annexure-II of Section-II and as specified in section-1 4.4 (A)-(a)**
- d) Major items of construction equipments proposed to carry out the Contract.
- e) Qualifications and experience of key site management and technical personnel proposed for the contract;
- f) Reports on the financial standing of the bidder, such as profit and loss statement and auditor's reports for the past five financial years;
- g) Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources). **Bank Solvency Certificate should be furnished in the format of Annexure-III of Section-II.**
- h) Authority to seek references from the Bidder's bankers;

- i) 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);
- j) The proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedure proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per mile stones as mentioned in the contract data.

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 nature of works in any one financial year during the last five financial years of value not less than the amount equal to 30% of the estimated value of bid for which bids are invited. The bidder must provide the acknowledgement from the manufacturer/Authorised Dealer of Surface treatment unit to Design, Supply, installation, testing & commissioning of packaged Water treatment plants (unconventional type) of capacity equal to or above 0.20 MLD capacity with (20 hours operation) comprising of Lamella clarifier, static mixture flocculation tank (SMFT), MULTI Grade filter (MGF) With best quality filter media, lime/coagulant/chlorine dosing system, raw water feed pump/ clear water transfer pump (either or) sludge transfer cum recirculation system, filter feed pump & back Wash pump, including all fittings like valve and other special fittings and electrical power supply to the different supplied units with MCB Panel, internal electrification with lighting arrangement within treatment plant site with provision of chemical storage and water testing laboratory facility should be from a reputed manufacturer /authorised dealer confirming to relevant IS Codes and certified by ISO-9001-2008 & 14001. It also includes cost of civil foundation, interim clarified water tank, inter connecting pipe lines from raw water inlet to CWR and applying internal epoxy paint on the supplied equipment with one year defect and liability period and to extend the operation and maintenance of the surface treatment unit if operation and maintenance cost is paid extra after the defect and liability period. The manufacturer/Authorized dealer must provide the experience certificate of successfully completion of similar or more capacity surface treatment unit from any Govt. organization/Govt. agency/PSU within last five years. Also the bidder should have experience in 5 years operation & maintenance of packaged WTP of any capacity.

(b) Financial Capacity

The bidder should have annual turnover from all classes of Engineering work contracts of not less than 40% of estimated cost in any one financial year during last 5 (five) financial years.

A certificate 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 **2025-26**, then the following weightage factor shall be considered.

Year of completion	Weightage factor
2025-26	1.0
2024-25	1.10
2023-24	1.21
2022-23	1.33
2021-22	1.46
2020-21	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 weight age factors.**
- (ii) **Completed works means the work that has been satisfactorily completed in all respects.**
- (iii) **The bidder has to provide documentary evidence from the Chartered Accountant certifying the payment for the work has been completed and received each year for the said work. The works will not be considered for evaluation, if the bidder fails to provide any documentary evidence along with the proposal.**

4.4 (B) Each bidder should further demonstrate:

- (A) Availability (either owned or leased) of the following key and critical equipment for this work:

S No.	List of plants and equipments (insert the name of equipments)	Requirement (insert as required for the work)

Note: Based on the preliminary studies carried out by the department, an indicative list of major equipments and their quantity to attend the completion of works are shown in the above list.

- (B) The Bidders should, however, undertake their own studies and furnish with their bid, a detailed construction, planning and methodology supported with layout and necessary drawings and detail calculations to allow the Employer to review

their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (C) Liquid assets and / or availability of credit facilities of not less than the amount indicated in the Annexure (Credit lines / letter of credit / Certificate from banks for meeting the fund requirements etc. usually the equivalent of the estimated cash flow for three months in peak construction period)

4.4(c) Minimum Eligible criteria for the bidder. (If the bidder doesn't provide the minimum requirements, then his bid will be rejected)

- i. To qualify for award of the contract, the bidder/Manufacturers/ Authorized Dealer should have registered with the Odisha State Govt. & contactor of equivalent grade/ class registered with central govt./ any other State Govt./MES/Railway..
- ii. The bidder should have furnished documents such as affidavit, GSTIN (if applied for GST registration then copy of the same need to be submitted), Odisha, PAN card and EMD. The Contractors (Engineering, SC/ST and Physically Handicapped) desirous of availing exemption / relaxation in EMD should submit Affidavit along with valid document of proof as per the Govt. norm or else their cases may not be considered.
- iii. **Solvency Certificate to be submitted from the bank clearly mentioning the name of the work as mentioned in TCN as per section 2,Annexure-III amounting minimum 30% of the tender value.**Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provided references if contacted by the Employer for verification of Solvency certificate. The Solvency Certificate is need to be done after the invitation tender. Solvency certificate made before the invitation of tender will not be considered.

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,

Assessed Available Bid capacity = (A x N x 2 - B) (Duly certified by a CA) with concerned UDIN No.

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 2025-26] 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 Engineer-in-Charge, not below the rank of an Superintending Engineer or equivalent or bidder's Chartered Accountant. **Non-submission of work with contract value along with tender documents will cause disqualification of tender.**

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 take 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.

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

Each bidder shall submit only one bid for one work. A bidder who submits or participates in more than one bid [have to submit all the documents separately for each bid participated so far or](#) will cause the proposals with the bidder's participation to be disqualified.

6. Cost of Bidding

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

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

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

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)

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

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.

Pre Bid Meeting (Not Applicable in this Bid)

The bidder or his official representative is invited to attend a pre-bid meeting which shall be held on [\[insert date\]](#) at hours [\[insert time\]](#) at the office of [\[insert detail address\]](#).

The purpose of meeting will be to clarify issues and to answer questions on any matter

that may be raised at that stage.

The bidder is requested to submit any questions in writing to reach the Employer not later than one week before the meeting.

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.

Non attendance at the pre bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.

Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by cable/e-mail to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by cable/e- mail to the Employer. The Employer will assume no responsibility for postal delays.

To give prospective bidders reasonable time (usually not less than one month)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.

C. PREPARATION OF BIDS

11. Language of the Bid

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 "PHULBANI 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) Bid Security & Cost of bid document to be paid online
- (iii) **Details of Bidder** and supporting documents as specified in **Appendix of Section - 2**
- (iv) Certificates, undertakings, affidavits as specified in Section 2
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1
- (vi) Copy of valid Registration Certificate
- (vii) Copy of PAN Card
- (viii) GST Registration Certificate.
- (ix) No relationship certificate
- (x) Chartered Accountant Certificate **with respect to financial turnover as per Annexure-I.**
- (xi) **Solvency Certificate from bank clearly mentioning the name of the work as mentioned in TCN as per section 2,Annexure-III amounting minimum 30% of the tender value.**Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provided references if contacted by the Employer.

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

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.

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, initialing, dating and rewriting.

All duties, royalties 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.

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

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

Bids shall remain valid for a period **not less than 180 (one eighty) days** after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable / e- mail. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

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 tender Cost (as specified in TCN)** to be paid in online-payment gateway. The bidders with pending or failure payment status shall not be able to submit their bid.

Return of EMD:

In, the Technical evaluation process, the EMD of rejected bidder will be refunded to the account from where money has been debited after uploading of the Technical Evaluation Summary Sheet.

After Financial evaluation, the EMD of other than L1 and L2 bidder (or as the case may be such as decision of preferred bidder through lottery system etc.) will be credited to their respective account as per the Notification No.07556900012016-17254/W dated.05.12.2017 of Government of Odisha, Works department.

EMD on submission/cancellation of bids will be refunded to respective bidders account as per the above notification through e-procurement system.

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

Initial Security Deposit:

The successful Tenderer, 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 **E.E., RWSS. Division, PHULBANI** payable at **PHULBANI** with in 7 (seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

After signing of the Agreement with the preferred Bidder by the TIA on submission of required ISD (as per OPWD guideline) in the specified financial format and on uploading of the fact of award of Contract (AOC) by the TIA in the e-Procurement portal, the EMD of L1 & I2 bidder (or the case may be) will be refunded to their respective account in online

Additional Performance Security:

Additional performance Security shall be obtained from the 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 deposit by the successful bidder when the bid amount is less than the estimated cost put to tender 5% is nil , above 5% and below 10% to the extent of 50% and from 10% and above is 150% of the differential cost of the bid amount in shape of NSC/ KVP/ Post office saving Bank Account/ Post Office time deposit Account/ Bank guarantee from any nationalized/ Scheduled bank in India counter guarantee by its local branch at Bhubaneswar, e-Bank guarantee executed on the National e-Governance Services Limited (NeSL) Digital document execution Portal within seven days of issue of letter of acceptance (LOA) by the Superintending Engineer RWS&S Division, Phulbani (by e mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the security deposit / EMD shall be forfeited. Further proceeding for blacklisting shall be initiated against bidder.” (as per the Government of Odisha, Works Department Office Memorandum No.14299 dated 03.10.2017 & No. 14459(W) Dt. 20.9.2018 on amendment of Para No. 3.5.5.(V), Note-II of OPWD Code Vol-I) and office Memorandum No. 4559 Dated 5.4.2021 of Works Department.

GST Registration Number/ GSTIN:

Tenderers are required to submit attested copies of valid and up-to-date GST Registration Number along with their tenders, failing which their tenders will not be considered. Rate quoted by the contractor shall be excluding GST. The GST as applicable for the work contract shall be payable to the contractor on each bill amount on production of tax invoice.

N.B: After implementation of GST by Government, necessary clearance certificate as required instead of VATCC will be submitted.

Security Deposit

In addition to that **5% of gross value in case of “Super”, “Special”, “A” & “B” Class Contractor / 3% of gross value in case of “C” & “D” Class Contractor** will be deducted from bill(s) of the contractor toward **Security Deposit (SD)** which will be refunded after the defect liability period subject to payment of final bill.

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.

In consideration of the Superintending Engineer / Superintending Engineer / Chief Engineer / Government to investigate and to take 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.

The Bidder shall furnish, as part of his Bid, a Bid security in online of an amount as shown in **col.4** of the table of IFB for this particular Work. Bidders owned or desirous to hire machineries or equipments but deployed outside the state are required to furnish **twice the above amount** as bid security in the shape as mentioned above. [The name of the bidder who has been exempted from payment of EMD is provided for information of bidders vide Appendix-I to ITB.]

Any bid not paid Bid Security in online and not secured as indicated in Sub Clause 16.1 above shall be rejected by the Employer as non-responsive.

After Financial evaluation, the EMD of other than L1 and L2 bidder (or as the case may be such as decision of preferred bidder through lottery system etc.) will be credited to their respective account as per the Notification No.07556900012016-17254/W dated.05.12.2017 of Government of Odisha, Works department. 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.

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)

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.

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

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

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.

The documents shall contain:

- (i) Application/Bid in the prescribed format given in Clause 12 along with supporting documents;
- (ii) Cost of bid document, EMD (Bid Security) paid online ;
- (iii) Documents as per Appendix of Section-II.
- (iv) Any other documents required for eligibility criteria as mentioned in Clauses of ITB.
- (v) Notary affidavits in support of authenticity of above documents
- (vi) Registration Certificate, PAN Card, GST Registration Certificate, Solvency certificate, Turnover Certificate from Chartered Accountant with break-up of construction work and total work for each financial year.

The bid is received in on-line and, **the contents of on-line copy shall be only be considered for evaluation.**

No Hardcopy of online uploaded document need to be dropped in the drop box of O/O SUPERINTENDING Engineer, RWS&S Division, PHULBANI However during evaluation if the authority need to verify any documents the same must have to submitted to the authority by the bidder. The successful bidder need to submit the original Notary affidavits in support of authenticity of above documents during agreement.

Procedures of bid submission using electronic payment of tender paper cost and EMD by bidder: (as per the Notification No.07556900012016-17254/W dated.05.12.2017 of Government of Odisha, Works department)

- a) The bidders have to log onto the Odisha e-Procurement portal (<https://tenderodisha.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/W dt.23.07.2013.
- c) Electronic payment of tender paper cost and EMD: 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.
 - iii. 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.

20. Deadline for Submission of the Bids:

Applications/Bids shall be received only on "on-line" on or before the time and date as specified in the tender call notice on the application/bid due date.

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

Modifications/ substitution/ withdrawal of Applications/Bids

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.

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

Bid shall be received only ONLINE on or before the time and date as specified in the tender call notice.

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	Last date of receiving queries	As per TCN
2	Pre-Bid Meeting	Not applicable

S No.	Event Description	Date
3	Authority response to queries latest by	As per TCN
4	Bid Due Date (submission in online)	As per TCN
5	Bid opening date in online	As per TCN
6	Announce of technically qualified bidders	As per TCN

E. BID OPENING AND EVALUATION

23. **Bid Opening**

All the bids received shall be opened ONLINE in the office of SUPERINTENDING Engineer,

RWS&S Division, Phulbani 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.

The employer shall prepare minutes of the bid opening.

24. Process to be Confidential

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

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.

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.

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:

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

- (i) A tender shall be rejected if;
 - a) Price Bid is enclosed with the technical bid.
 - b) Cost of tender document is successfully paid online.
 - c) EMD as per DTCN is not paid online.
 - d) Valid GSTIN Registration Certificate is not enclosed.
 - e) PAN and valid license are not enclosed.
 - f) Turn over certificate with UDIN No is not enclosed.
 - g) List of works completed and payments received year wise.
 - h) Work experience in similar nature of work i.e. construction and O&M of packaged water treatment plant of equal to or more than 0.20 MLD capacity.
 - i) Assessed available Bid capacity (Annexure-B) duly certified by CA with cancelled UDIN is not enclosed.

(ii) In case if the bidder has not submitted following document with the bid due to any reason, clarification may be sought and queries may be issued to the bidders for submission of the same with a stipulated period, failing which their offer shall be liable for rejection.

- j) Proof of eligibility and qualifications is not enclosed.
- k) Proof of eligibility and qualifications is not enclosed.
- l) There are any criminal cases pending.
- m) Affidavit is not enclosed.
- n) Power of Attorney is not enclosed.
- o) Record of litigation and arbitration is not enclosed.
- p) Other documents as required not enclosed.

N.B: After implementation of GST by Government, necessary clearance certificate as required instead of VATCC will be submitted.

Any such conditions shall be minuted 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.

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

27 Clarification on Tenders from Tenderers:

To assist in the scrutiny, evaluation and comparison of the tenders, the **Superintending Engineer, RWS&S Division, PHULBANI** may ask contractor individually for clarification on their tenders. The request for clarification and response shall be in writing or by mail. However, no change in the tender amount/ rate shall be sought, offered or permitted by the **Superintending Engineer, RWS&S Division, PHULBANI** during the evaluation of the tenders.

28. Determination of Responsiveness:

Prior to the detailed evaluation of tenders, **Superintending Engineer, RWS&S Division, PHULBANI** 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.

Any tender which is not substantially responsive to the requirements of the tender documents will be rejected by the **Superintending Engineer, RWS&S Division, PHULBANI** 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).

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 Engineer-in-charge not below the rank of an Superintending 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 Dept. OM No.FA-Codes-97/11-6300 Dt.16.06.2011.)

29. Proposal Evaluation:

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.

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.

Evaluation of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

Evaluation of Technical Proposals:

The Evaluation Committee shall evaluate the Technical Proposals on the basis of their responsiveness to the DTCN.

A Proposal shall be rejected at this stage if it does not respond to required aspects of the NIT / DTCN.

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 may 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.

Financial bids determined to be substantially responsive will be checked by the employer for any arithmetic error(s).

The Evaluation Committee will correct any computational errors. When correcting computational errors, 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 in consistent / 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.

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**

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

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 taken into account 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**

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").

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.

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.

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

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 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 **E.E., RWSS. Division, PHULBANI** payable at **PHULBANI** with in 7 (seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

After signing of the Agreement with the preferred Bidder by the TIA on submission of required ISD (as per OPWD guideline) in the specified financial format and on uploading of the fact of award of Contract (AOC) by the TIA in the e-Procurement portal, the EMD of L1 & I2 bidder (or the case may be) will be refunded to their respective account in online.

Additional Performance Security:

Additional performance Security shall be obtained from the 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 deposit by the successful bidder when the bid amount is less than the estimated cost put to tender 5% is nil , above 5% and below 10% to the extent of 50% and from 10% and above is 150% of the differential cost of the bid amount in shape of NSC/ KVP/ Post office saving Bank Account/ Post Office time deposit Account/ Bank guarantee from any nationalized/ Scheduled bank in India counter guarantee by its local branch at Bhubaneswar, e-Bank guarantee executed on the National e-Governance Services Limited (NeSL) Digital document execution Portal within seven days of issue of letter of acceptance (LOA) by the Superintending Engineer RWS&S Division, Phulbani (by e mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the security deposit / EMD shall be forfeited. Further proceeding for blacklisting shall be initiated against bidder.” (as per the Government of Odisha, Works Department Office Memorandum No.14299 dated 03.10.2017 & No. 14459(W) Dt. 20.9.2018 on amendment of Para No. 3.5.5.(V), Note-II of OPWD Code Vol-I) and office Memorandum No. 4559 Dated 5.4.2021 of Works Department.’

GST Registration Number/ GSTIN:

Tenderers are required to submit attested copies of valid and up-to-date GST Registration Number along with their tenders, failing which their tenders will not be considered. Rate quoted by the contractor shall be excluding GST. The GST as applicable for the work contract shall be payable to the contractor on each bill amount on production of tax invoice.

N.B: After implementation of GST by Government, necessary clearance certificate as required instead of VATCC will be submitted.

Security Deposit

In addition to that 5% of gross value in case of "Super", "Special", "A" & "B" Class Contractor / 3% of gross value in case of "C" & "D" Class Contractor will be deducted from bill(s) of the contractor toward Security Deposit (SD) which will be refunded after the defect liability period subject to payment of final bill

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.

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. **Advance payment and security** - The Employer shall make advance payment to the contractor of the amount stated in the contract Data by the date stated in the contract Data, against provision by the contractor of an unconditional bank guarantee in a form and a bank acceptable to the Employer in amounts and currencies equal to the advance payment.

41. Corrupt or Fraudulent Practices

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.

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.

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:

- CONTRACTOR'S BID
- **DETAILS OF BIDDER(Qualification Information)**
- LETTER OF ACCEPTANCE
- NOTICE TO PROCEED WITH THE WORK
- AGREEMENT FORM

Contractor's Bid

DESCRIPTION OF THE WORKS: BID FOR DESIGN AND EXECUTION ON TURN KEY BASIS FOR CONSTRUCTION OF [INSERT NAME & LOCATION OF PWS WORK]

BID

To: [Insert name of bid inviting authority who will receive bid on behalf of the Employer]

Address: [Insert office address]

GENTLEMEN,

Having examined the bidding documents including addendum, I / We offer to execute the works described above in accordance with the condition of contract, specification, accepted tender drawing, and payment schedule accompanying this bid for the contract price as tender in our price bid document separately.

The advance payment required is .-----

The bid and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We understand that, in competing for (and if the award is made to us, in executing) the above contract, we will strictly observe the laws against the fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We hereby confirm that this bid complies with the bid validity and bid security required by the bidding documents.

We attach here with our current income tax clearance certificate.

Yours faithfully,

Authorised Signature:

Name and Title of Signatory: -----

Name of bidder: -----

Address: -----

DETAILS OF BIDDER (QUALIFICATION INFORMATION)

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

Constitution or legal status of Bidder

[Attach copy]

Place of registration: _____

Principal place of business: _____

Power of attorney of signatory of Bid _____

[Attach]

The Firms/ Companies/ Registered Contractors should have successfully Completed & Commissioned similar nature of Works during the last 5 (five) years up to the Bid submission deadline. The bidder should submit the details of the project along with completion/experience certificate of each project as per note (v) under clause-4.4 (A) of General Instruction in the format given at Annexure-II.

Item (1)	Particulars of the Project (2)
Title & nature of the project	
Name of the Employer with address and contact number	
Location	
Project Cost (In INR Lakhs)	
Contract/Agreement Number	
Category (PWS work or civil construction work)	
Year-wise (a) payments received for construction (Amount in INR lakhs)	For Example: 2024-25 2023-24 2022-23 2021-22: 2020-21:
Date of commencement of project/ contract	
Date of completion/ scheduled date of completion	

Updation Factor as given below:-

For Year	Year Before	Updation factor
1	1	1.1
2	2	1.21
3	3	1.33
4	4	1.46
5	5	1.61

Note: The statement showing the value of existing commitments and on-going works as well as the stipulated period completion remaining for each of the works mentioned in above table should be countersigned by the Engineer-in-Charge, not below the rank of an Superintending Engineer or equivalent or applicant's Chartered Accountant.

1.5 The following items of Contractor's Equipment are essential for carrying out the works. The Bidder should list all the information requested below. Refer also to Clause 4.2 (d) of the Instructions to Bidders.

Item of Equipment	Requirement	Availability proposals		Age/Condition	Remarks (from whom to be purchased)
	No.	Nos./Capacity	Owned/Leased to be procured		

Qualifications and experience of key personnel required for administration and execution of the Contract. Attach biographical data. Refer to Clause 4.2 (e) and 4.4 (B) (b) of Instruction to Bidders and sub clause 9.1 of the condition of contract.

Position	Name	Qualification	Year Experience of (General)	Years of experience in the proposed position
Project Manager etc.				

Financial reports for the last five financial years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.

Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents. [Sample format enclosed]. **This should be furnished by the bidder in the letter head of bank at Annexure-III.**

Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

Information on litigation history in which the Bidder is involved.

Other Party (ies)	Employer	Cause of Dispute	Amount involved	Remarks showing Present Status

Statement of compliance under the requirements of Sub-clause 3.2 of the Instruction to Bidders

Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. (Refer ITB Clause 4.1 and 4.2 k).

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.

FINANCIAL YEAR	Home	Abroad	(Rs. In lakh) Total
	Total Turnover	Total Turnover	Total Turnover
2024-25			
2023-24			
2022-23			
2021-22			
2020-21			

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

3. Applicant's specific financial arrangements (mention amount in Indian Rupees)
 - a) Own Resources
 - b) Bank Credits
 - c) Others (specify)

4. Credit Facilities :

To be supported by certificate for the Bank in **Annexure-III**.

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 (project wise

information be furnished as per 1.2 of

Appendix). (Rs. in lakh)

Name of the work/ location Agmt. No. & Dt.	Name of the employe r	Value of Contract price	Total Value of work executed	Financial year-wise Computed amount	Stipulated date of commence - ment	Stipulated date of completion	Actual compl etion date	Reasons f delay
1	2	3	4	5	6	7	8	9

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

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES**

(CLAUSE 4.2 OF ITB)

FORM OF SOLVENCY CERTIFICATE FROM BANK

This is to certify that M/s _____ is a reputed company bearing current account no. with a good financial standing. If the contract for the work namely [**“Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50,000 ltr to 100000 ltr with 5 years operation and maintenance for RPWS scheme to village Danekbadi, Jhinjiriguda, Padanketa, Pliheri, Sikarmaha, Sirkabarga, Tamangi & Tiyarigaon under Daringibadi Block in the district of Kandhamal”**] on turnkey basis involving design and execution is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of `Rs. (Minimum 30% of the tender value) to meet their working capital requirements for executing the above contract.

(Signature) Name of Bank
Senior Bank Manager
Address of the Bank

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.

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 10 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 statues 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, Organization or wing is the Chief Engineer or highest tender accepting authority or equivalent officer, Division is the Superintending Engineer or equivalent Officer and Subdivision is the Assistant Superintending 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.

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.

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.

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.

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.

Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender)

- (i) Opening of Bid

Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender)

- (i) Evaluating Bid

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):

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.

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 ”	

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”.

13. ISSUE OF ADDENDA/ CORRIGENDA/ CANCELLATION NOTICE:

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.

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:

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

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.

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:

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

(b) For Two Cover/Packet:

SI No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical	Tender Cost, EMD, GSTIN Registration certificate, 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 organization.

15. PARTICIPATION IN BID:

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) / VAT Clearance Certificate / 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/ VAT Clearance. 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.

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.

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.

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.

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.

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.

PREPARATION OF BID

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.

The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid Document, Bid Security, Declaration form, price bid etc. and store in the system.

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

The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under NIT/Contract Data. The bidder shall scan all the written/printed pages of the bid security and up load the same in portable document format (PDF) to the system in designated place of the technical BID. Furnishing scanned copy of such documents is mandatory otherwise his/her bid shall be declared as non-responsive and liable for rejection.

The EMD or Bid Security payable along with the bid is 1% of the estimated contract value (ECV) or as mentioned in the bid document. The validity period of the EMD or Bid Security shall be as mentioned in the bid document. Any bid not accompanied by an acceptable Bid Security and not secured as indicated in the bid document shall be rejected as non- responsive. The bid security shall be retained till such time the successful bidder furnishes Initial Security Deposit (ISD) or Performance Security acceptable to the Officer Inviting the Bid. Failure of the successful Bidder to comply with the requirements shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security. The Bid security in the form of FD / BG shall be from a Nationalized Bank valid for a period of 45 days beyond the validity of the bid. Bid security in other form is acceptable if the bid documents provides for it.

The Fixed Deposit / Bank Guarantee or any other form as mentioned in detailed tender call notice in respect of Earnest Money Deposit / Bid Security and the Bank Draft in respect of cost of Bid are to be scanned and up loaded in portable document format (PDF) along with the bid.

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.

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

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:

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 Bid documents, EMD/ Bid Security, VAT/GST IN, PAN / TIN, Registration Certificate, Affidavits, Profit Loss statement, Joint venture agreement, List of similar nature of works, work in hand, list of machineries, 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.

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. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.

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.

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 and type percentage excess or less up to two decimal place only in case of percentage rate tender.

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.

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.

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.

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

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

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

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

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

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.

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.

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:

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

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:

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

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

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.

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.

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:

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.

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

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.

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.

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

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.

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 :

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".

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.

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.

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

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

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.

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.

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

The responsive bidders' name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.

Procurement Officer-Openers shall sign on each page of the downloaded BOQ and the

Comparative Statement and furnish a certificate to that respect.

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.

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:

The Employer/Engineer-in-Charge 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 Engineer-in-Charge 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.

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

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:

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.

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.

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.

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

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

Fails to execute the agreement within the stipulated date.

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:

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

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.

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.

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.

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.

File No. 07556900012016 – 17254 / W dated 5.12.17

Electronic Receipt, Accounting and Reporting of Cost of Tender Paper and Earnest money Deposit on submission of bids.

- 1. The State Government have been working on formulation of 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. “<https://tendersodisha.gov.in>” for some time past.**
- 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 etc. in phases (ANNEXURE-I). 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 and 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.**

(<https://tendersodisha.gov.in>)

- b) The Designated Banks participating in Electronic receipt, accounting and reporting of Cost of Tender Paper and 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 EMD by bidder:
- a) **The bidders have to log onto the Odisha e-Procurement portal (<http://tPnriPrsodisha.aov.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/W dt.23.07.2013.**
- c) **Electronic payment of tender paper cost and EMD : 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 challans under the head of Account for Cost of Tender Paper and instruct the designated Banks to remit the money to the proper head of account of State Government. 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 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 and EMD 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 and Earnest Money Deposit on submission of bids is enclosed in the Annexure-1.**

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 the 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.Remittances-1683-Remittances-91028-Remittances 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 D.A.G., PHULBANI 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) 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 Governments department/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre/ the authorized 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 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 organizations 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 authorized 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 suo moto 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 and Earnest Money Deposit in OPWD Code and OGFR would stand modified to the extent prescribed

in this Office Memorandum.

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.

1. This shall take effect from the date of issue of this Office Memorandum.

2. Accordingly, relevant existing codal / contractual provision exist vide Office Memorandum No.6785/W dt.09.05.2017 of Works Department stands modified to the above extent.

3 This has been concurred in by the Finance Department vide their UOR No.-39-WF-I dt.09.11.2017.

Sd/- 5.12.17

E.I.C-cum-Secretary to Government

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments 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. 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.

4. 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

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
“[“Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50,000 Itr to 100000 Itr with 5 years operation and maintenance for RPWS scheme to village Danekbadi, Jhinjiriguda, Padanketa, Pliheri, Sikarmaha, Sirkabarga, Tamangi & Tiyarigaon under Daringibadi Block in the district of Kandhamal]” 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 39.1 and 39.2 of ITB for an amount of Rs. _____ within **07** days of the receipt of this letter of acceptance and sign the contract failing which action as stated in Para 39.1 and 39.3 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 effected.

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”[**“Design, supply, installation, testing & commissioning of 8 Nos of Packaged Water Treatment Plants (unconventional type) of Capacity 0.20 Mld to 0.30 Mld, construction of 8 Nos of RCC Under Ground Clear Water Reservoir of Capacity 50,000 ltr to 100000 ltr with 5 years operation and maintenance for RPWS scheme to village Danekbadi, Jhinjiriguda, Padanketa, Pliheri,Sikarmaha, Sirkabarga, Tamangi & Tiyarigaon under Daringibadi Block in the district of Kandhamal”**] 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
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CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

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.

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

Compensation events are those defined in clause 41 hereunder

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

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.

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

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

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

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

Days are calendar days; months are calendar months.

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

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

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

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.

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

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

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.

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

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

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

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.

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

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.

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

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

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

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.

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 of the whole of the works).

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. Sub-contracting

7.1 No sub-contracting of the work is allowed.

8. Other Contractors -

8.1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9. Personnel

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.

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

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.

If all the items listed in clause 13.1(B) can be combined/grouped under one insurance cover like contractor's, All Risk (CAR) Policy, then the same is acceptable.

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.

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.

Alterations to the terms of insurance shall not be made without the approval of the Employer.

Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

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.

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.

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

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.

The Contractor shall be responsible for design of Temporary Works.

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

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 needs to be submitted to the Employer within the stipulated datelines as mentioned in the contract data and at section-8.

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

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

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

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.

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.

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 updated 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.

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

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

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

30. Management Meetings

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.

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

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.

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

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

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

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.

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

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

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.

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

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 there under ("Change in scope notice")

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)

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)

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)

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.

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.

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.

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

39 Payment certificates

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

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).

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

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.

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

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

The following are the compensation events unless they are cause 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.

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.

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.

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 [Royalty,carraiage,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

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.

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

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.

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.

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 milestone, 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.

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

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

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

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 Advance Payments (Not applicable in this Bid)

The Engineer shall make advance payment to the contractor for mobilisation and cash flow support of the amount stated in the contract data by the date stated in the contract data, only against provision by the contractor of an unconditional Bank guarantee in a form by a Nationalised Bank acceptable to the Engineer in amounts and currencies equal to the advance payment.

An interest @10% per annum shall be charged on the advance payment.

The Advance payment shall not be released until the design is finalised and establishment of camp at work site is completed.

The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the contractor. The contractor shall ensure that the Bank guarantee remain enforceable until the advance payment has been fully repaid and accordingly renew it, from time to time, until the advance payment has been fully repaid.

If the terms of guarantee specify its expiry date, and the advance payment has not been repaid by the date then 28days prior to the expiry date, the contractor shall extend the validity of guarantee until the advance payment has been fully repaid.

The advance payment shall be repaid through percentage deductions from the interim payments as follows:-

- a) Deduction shall commence from the 1st interim payment.
- b) Deduction shall be made in proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 80% of the accepted contract amount has been repaid.

If the advance payment has not been repaid prior to the issue of the taking over certificate for the work or prior to termination under section-3 clause 54 of (termination by Employer), as the case may be, the balance advance is payable by the contractor to the employer.

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

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

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

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."

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.

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

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

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.

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

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

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

LABOUR:

The Contractor/Manufacturer/ Authorized Dealer 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.

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 W ages 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 employ 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

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).

All materials required for completion and commissioning of the awarded work are to be procured by the contractor.

For all materials the contractor shall have to furnish manufacturer's test certificates.

For all materials which come under EPM rate contract the contractor shall have to furnish CIPET inspection report.

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.

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.

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.

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.

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.

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.

All the security deposit and maintenance cost will be released to the Contractor by the SUPERINTENDING Engineer, RWS&S only after recommendation of Junior Engineer/Asst. Engineer, RWSS and Assistant Superintending Engineer, RWS&S.

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.

The variation of payment due to above will be guided by the rates in the sanctioned estimate.

The contractors shall operate (upto 20 hrs a day) and maintain the Water Treatment Plants with supply of all materials, chemicals, consumables, Labour, T&P etc as per direction of Engineer-in-Charge for 05 calendar years from the completion date of the project. The Operation and Maintenance of Packaged Water Treatment Plants also cover operation of Pump Motor from Source to Treatment Plant and to Clear Water Reservoir and from CWR (Clear Water Reservoir) to ESR/OGR which includes engagement of Pump Operators at Raw Water Source and in WTP, CWR at contractors own cost. The agency is responsible to operate and maintain WTP uninterruptedly so that treated and potable water as specified in PH Manual will reach to the people of tail end. Arrangement of adequate man power/ technical person with stand by electro-mechanical components should be ensured. Advance supply of Chemicals & consumables at least for two months' running of WTP shall be ensured failing which payment may be held up for any completed WTPs and it is at the discretion of the Superintending Engineer, RWSS Division, Phulbani. Any kind of bill for the projects should be processed with an enclosed certificate from AE/JE concerned regarding availability of adequate quantity of chemicals & Consumables well in advance at least for two months failing which 3 times of the cost of the said chemicals & Consumables shall be recovered from any kind of bills for projects. The defect liability period is one year from the completion of project, which is concurrent with the five years of operation and maintenance period.

The contractor shall quote rates for the maintenance separately in the bidding documents.

The contractor shall deposit the amount equal to 5% of quoted amount for maintenance/ O&M period in shape of five nos. of NSC as per payment schedule mentioned in clause B of Addendum 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.

H. Important General Conditions of Contract.

61.

Decision of SUPERINTENDING 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, PHULBANI**, herein after called the SUPERINTENDING 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 SUPERINTENDING Engineer is to decide which shall be followed.

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 Superintending Engineer and during the progress of the works to amend on the requisition of the Superintending 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.

Approved Drawings & Specification of Site with Contractors Agent:

Complete copies of the drawing and specifications signed by the SUPERINTENDING 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 Superintending Engineer.

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 Superintending 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 Superintending 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 Superintending Engineer and no such authority shall be given if the work is capable of being measured and being paid for at an agreed rate.

Rate for Extra Work.

Any authority given by the Superintending 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 Superintending 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 **Engineer-in-Charge(insert competent authority)**, will fix the rates to be paid and his decision shall be final.

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 Superintending 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.

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 Engineer-in-charge. The contractor shall furnish necessary certificates in support of the quality of the materials as may be required by the Engineer-in-charge.

The Engineer-in-charge 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 Superintending 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 Superintending 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 Superintending Engineer is also to have full power to require other proper materials to be substituted and in case of default, the Superintending 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.

Execution with Defective Workmanship & Improper Materials.

If in the opinion of the Superintending Engineer any of the works have been executed with improper materials or defective workmanship, the contractor is then required by the Superintending 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 Superintending 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.

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 Superintending Engineer to be amended and made good by the contractor at his own cost unless the Superintending 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.

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.

Execution of Works in the Site by Other Workmen:

The Superintending 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.

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 Superintending Engineer shall certify as the date on which the work is finished after necessary rectification

of defects as pointed out by the Superintending Engineer or his authorised agents, are fully complied with by the contractor to the Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending 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.

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 Superintending 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 Superintending 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 Superintending Engineer by the contractor or may be set off by the Superintending 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.

Price Variation / Escalation Clause: (Vide Works Deptt. Office Memorandum No.12606/W dt.24.12.2012) **This clause will be applicable to the contracts where original stipulated period of completion is more than 18 months.**

Contract price shall be adjusted for increase or decrease in rates and price of Labour, Cement, Steel, Bitumen, Pipes, POL & other material component in accordance with the following principles and procedures as per formula given below:

- (a) (i) REIMBURSEMENT / RECOVERY DUE TO VARIATION IN PRICES OF MATERIALS OTHER THAN (STEEL, CEMENT, BITUMEN, PIPES & P.O.L)

"If during the progress of the work the price of any materials (excluding the cost of steel, cement, bitumen & POL) incorporated in the work (not being materials supplied from the Engineer-in-charge's store) in accordance with clause there of increases or decreases as a result of increase or decrease in the Average Wholesale Price Index (all commodities), and the Contractor thereupon necessarily and properly pays in respect of that materials incorporated in the work such increased or decreased price, then he shall be entitled to reimbursement or liable to refund, quarterly as the case may be, such an amount, as shall be equivalent to the plus or minus difference of 85% in between the Average Wholesale Price Index (all commodities) which is operating for the quarter under consideration and that operated for the quarter in which the bid was received (last date of receipt) as per the formula indicated below provided that the work has been carried out within the stipulated time or extension thereof as are not attributable to him. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price escalation on the above materials on the value of works executed during the extended period.

This clause will be applicable to the contracts where original stipulated period of completion is more than 18 months.

In the situation where the period of completion is initially stipulated in the agreement as less than 18 (eighteen) months but subsequently the completion period has been validly extended on the ground that the delay in completion is not attributable to the contractor and in the result the total period including the extended period stands more than 18 (eighteen) months or more, price escalation for other materials is admissible only for the remaining period excluding 18 (eighteen) months there from.

Formula to calculate the increase or decrease in the price of material:-

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

$$V_m = 0.85 \times P_m / 100 \times R \times (M_i - M_o) / M_o$$

V_m = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates of materials other than cement, steel, bitumen, pipes and POL.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate/ derived rates.

M_o = The all India wholesale Price Index (all commodities) prevailed during the quarter of last date of receipt of bids (as published by the Economic Adviser to Govt. of India, Ministry of Industry and Commerce, New Delhi).

M_i = The all India wholesale price index (all commodities) for the quarter under consideration as published by Economic Adviser, Govt. of India, Ministry of Industry and Commerce, New Delhi. In respect of the justified period extended for completion of the work, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.

P_m = Percentage of material Component (other than cement, steel, bitumen, pipes and POL) of the work, as indicated in clause – (d) below.

(a) (ii) REIMBURSEMENT / RECOVERY OF DIFFERENTIAL COST DUE TO VARIATION IN PRICES OF PRINCIPAL MATERIALS (STEEL, CEMENT, BITUMEN & PIPES NOT ISSUED BY DEPARTMENT) AFTER SUBMISSION OF TENDER.

If after submission of the tender, the prices of steel, cement, bitumen and pipes (not being supplied by the Department) increases / decreases beyond the price (s) prevailing at the time of the last date for submission of tenders including extension for the work, the contractor shall be eligible to get differential cost due to such hike on the value of works executed during the stipulated period and during the extended period when the reason of delay in completion of the work is not attributable to the contractor. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price variation on the above materials on the value of works executed during the extended period.

Reimbursement in case of differential cost due to increase in prices of cement, steel, bitumen and pipes are to be made by the Superintending Engineer with prior approval of tender accepting authority subject to following conditions:

- 1) Contractors have to submit the vouchers showing procurement of different materials from authorized dealers for the said work.
- 2) Differential cost will be allowed only for the works which are progressed as per the approved work programme / revised work programme duly approved by the Engineer-in-charge.

Recovery in case of decrease in prices of cement, steel, bitumen and pipes shall be made by concerned Superintending Engineer from the Contractor immediately.

The increase / decrease in prices of cement, steel, Bitumen and Pipes for reimbursement / recovery shall be determined as follows.

a) Adjustment towards differential cost of cement

$V_c = (C_i - C_0) / C_0 \times$ Actual quantity of cement utilised in the work during the quarter under consideration \times base price of cement as prevailing on the last stipulated date of receipt of tender including extension, if any.

V_c = Differential cost of cement i.e. amount of increase or decrease in rupees to be paid or recovered

C_i = All India wholesale price index for cement for the quarter under consideration as published by Economic Adviser, Government of India, Ministry of Industry and Commerce, New Delhi.

C_0 = All India wholesale price index (as published by Economic Adviser, Government of India, Ministry of Industry and Commerce, New Delhi) for cement as prevailing on the last stipulated date of receipt of tender.

b) Adjustment towards differential cost of Steel

$V_s = (S_i - S_0) \times$ Actual quantity of steel utilised in the work during the quarter under consideration

V_s = Differential cost of steel i.e. amount of increase or decrease in rupees to be paid or recovered

S_i = Cost of the steel as prevailed during the period under consideration as fixed by Steel Authority of India.

S_0 = Base price of steel prevailing as on the last date of submission of tender including extension, if any.

c) Adjustment towards differential cost of Bitumen.

$V_b = (B_i - B_0) \times$ Actual quantity of Bitumen utilised in the work during the quarter under consideration

V_b = Different cost of bitumen i.e. amount of increase or decrease in rupees to be paid or recovered

B_i = Average Cost of Bitumen prevailed during the period under consideration as fixed by IOCL/ BPCL/HPCL.

B_0 = Base price of Bitumen as prevailing on the last stipulated date of receipt of tender including extension, if any.

d) Adjustment towards differential cost of Pipes.

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

V_p = Different cost of Pipe i.e. amount of increase or decrease in rupees to be paid or recovered during the quarter under consideration.

P_p = Percentage of pipe component of the work as indicated in the Clause - (d)

R = Value of work done during the quarter under consideration excluding the value of work executed under extra items, if any, at prevailing schedule of rates or derived rate.

P_i = All India Wholesale Price Index for the period under consideration as published by Economic Advisor, Government of India, Ministry of Industry & Commerce, New Delhi for the type of pipe under consideration.

P_o = All India Wholesale Price Index (as published by Economic Advisor, Government of India, Ministry of Industry & Commerce, New Delhi) as on the last stipulated date of receipt of tender including extension, if any, for the type of pipe under consideration.

(b) REIMBURSEMENT / REFUND DUE TO STATUTORY RISE IN COST OF MINIMUM WAGES BY GOVERNMENT.

If after submission of the tender, the wages of labour increases or decreases as a direct result of the coming into force of any fresh law, or statutory rule or order beyond the wages prevailing at the time of the last date of submission of tenders including extensions, the contractor shall be eligible to get escalation due to such hike on the value of works executed during the stipulated period and during the validly extended period when the delay in completion is not attributable to the contractor. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get escalation on labour on the value of works executed during the extended period.

The contractor shall within a reasonable time of his becoming aware of any alteration in the price of any such wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in a position to supply. Engineer-in-Charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of wages and actual payment thereof. For this purpose, the labour component of the work executed during period under consideration shall be the percentage (as specified in table below) of the value of the work done during that period and the increase / decrease in labour shall be considered on the cost of minimum daily wages of any unskilled Labourer, fixed by the Government of Odisha under Minimum Wages Act.

The compensation for escalation for labour shall be worked out as per the formula given below:

$$V_i = 0.85 \times P_i / 100 \times R \times (L_i - L_o) / L_o$$

V_i = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates of minimum wages.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate / derived rates.

L_o = The Minimum Wages for labour as notified by State Government, as prevailing on the last stipulated date of receipt of tender including extension, if any.

L_i = The minimum wages for labour as notified by State Government & as prevailed on the last date of the quarter previous to the one under consideration. In respect of the justified period extended, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.

P_i = Percentage of labour component of the work, as indicated in the Clause (d).

(c) REIMBURSEMENT / REFUND DUE TO VARIATION IN PRICES OF P.O.L:

Similarly, if during the progress of work, the Prices of Diesel, Petrol, Oil & Lubricants increases or decreases as a result of the price fixed thereof by the Government of India and the contractor there upon necessarily and properly pays such increased or decreased price towards Diesel, Petrol, Oil & Lubricants used in the execution of the work, then he shall be entitled to reimbursement or liable to refund, quarterly, as the case may be such an amount as shall be equivalent to the plus or minus difference of 85% in between the price of P.O.L, which is operating for the quarter under consideration and that operated for the quarter of last date of receipt of bids as per the formula indicated below provided that the work has been carried out within the stipulated time or extension there of as are not attributable to him. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price escalation on P.O.L on the value of works executed during the extended period.

Formula to calculate the increase or decrease in the price of P.O.L:-

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

V_f = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for POL.

P_f = Percentage of P.O.L component of the work, as indicated in Clause – (d) below.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate / derived rates.

F_i = All India Wholesale Price Index for Fuel , Oil & Lubricant (High Speed Diesel) for the quarter under consideration as published by Economic Adviser, Government of India, Ministry of Industry & Commerce, New Delhi. In respect of the justified period extended, the rates prevailing at the time of stipulated date of completion or the prevailing rates of the period under consideration, whichever is less, shall be considered.

F_0 = All India Wholesale Price Index for Fuel, Oil & Lubricant (High Speed Diesel) as prevailing on the last stipulated date of receipt of tender including extension, if any.

(d) The following percentages will govern the price adjustment for the entire contract for different types of works as applicable given in the following table.

Percentage Table

Sl. No.	Category of works		% Component (cost wise)		
			Labour (P _l)	P.O.L (P _r)	Steel + Cement+ Bitumen+ other materials *
1.	R&B works (% of component)	Road works	5	5	90
		Bridge works	25	5	70
		Building works	25	-	75
2.	Irrigation works	Structural work	20	5	75

	(% of component)	Earth, Canal & Embankment work	25	10	65
3.	P.H. Work	Structural work	25	5	70
		Pipeline work	5	-	Pipe – 70% * other material -25%
		Sewer line	10	-	Pipe – 70% * other material -20%

*Note: Further break up may be worked out considering the consumption of Cement, Steel, Bitumen and Pipe in the concerned works for the period under consideration.

(e) APPLICATION OF ESCALATION CLAUSE:

- (i) The contractor shall for the purpose of availing reimbursement / refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other 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 authorised 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 his becoming aware of any alteration 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 there to which he may be in a position to supply.
- (ii) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

Defects Liability Period:

The defect liability is **12 months** from the date of formal taking over of the work by the Engineer-in-charge.

Contractor Liable for Damage done & for Imperfection for 6 (six) 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 Engineer-in-charge, as aforesaid, the contractor shall make the same good at his own expenses or in default the Engineer-in-charge may cause the same to be made good by other workman and deduct the expenses of which the certificate of the Engineer-in-charge 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 Engineer-in-charge.

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 Engineer-in-charge after obtaining approval from competent authority.

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.

If the rate quoted by the bidder is less than 15% of the tendered amount, then such a bid shall be rejected and the tender shall be finalized basing on merits of rest bids. But if more than one bid is quoted at 14.99% (Decimals upto two numbers will be taken for all practical purposes) less than the estimated cost, the tender accepting authority will finalize the tender through a transparent lottery system, where all bidders / their authorized representatives, the concerned Superintending Engineer and DAO will remain present.

(As included in Appendix – IX, Clause – 36 of OPWD Code Vol.II vide Works Department letter No.12366/W dt.18.11.2013).

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).

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 ‘..... **Rate**’ for the complete work in all respects. The offer shall be inclusive of cost of all materials, labour, T&P 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 Engineer-in-charge to the satisfaction of the later.

Rescission of Contract:

Subject to other provisions contained in this clause the Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending 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 Superintending Engineer shall be conclusive evidence), **20% of the value of the left over work** will be realized from the contractor as Penalty

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 Engineer-in-Charge and further shall furnish such other information/ document as the Engineer-in-Charge 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 Engineer-in-Charge 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., VAT/GST etc, will be deducted at sources from the bills of the contractor and deposited with concerned authority.

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

Addendum to special condition of contract

Payment to the contractor as per break up schedule is as follows

For Packaged WTP (Unconventional Type)

Drawing, Design, Installation, Testing, commissioning of all items of Packaged Water Treatment Plant, Construction of Clear Water Reservoir, Installation of Pump Motor in CWR, laying of Rising Main from CWR to Distribution/OGR/ESR including electrification as per BOQ for a particular PWS Project (Excluding O&M Cost) as per direction of Engineer-in-Charge : 100%

1. The rate accepted for maintenance/ O&M cost for the Packaged WTP 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/ Packaged WTP in the village/ GP or any other member nominated by Engineer-in-Charge/ 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. In case the contractor fails to comply the terms and conditions of maintenance/ O&M of Packaged WTP mentioned in section 5 and day to day compliance from the community, the security deposit will be forfeited.

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 Packaged WTP.

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. Physical works to be completed

Period of completion
from start date

i) Installation, testing & Commissioning of Packaged WTP with all items, CWR, Pumping arrangement etc.

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

10. The law which applies to the Contract is the laws of Union of India [Cl.3.1]

11. The language of the Contract documents is English. [Cl.3.1]

12. The Schedule of Key Personnel As per Appendix of Section II [Cl. 1.6]

13. 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]

14. Site investigation report [Cl.14]
15. The Site Possession Dates shall be **within seven days from Notice to Proceed to Work.** [Cl.21]
16. The period for submission of the programme for approval of Engineer shall be 14 days from the issue of Letter of Acceptance. [Cl.27]

17. The currency of the contract is Indian Rupees [CL.43]

18. Retention money- 5% of gross value of the bill [Cl. 44]

19. 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]

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

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

Name of Contract:"

21. 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]
As per the latest amendment to Para 3.5.5 of OPWD code [Cl.46]
22. Amount of incentive/bonus for early completion of work.

23. The amounts of the advances payment are: (Not applicable to this contract) [CL.47 of sec 1]

	<u>Nature of Advance</u>	<u>Amount(Rs.)</u>	<u>Conditions to be fulfilled</u>
24.1	Mobilisation for work	10% of the Contract value.	On submission of unconditional bank guarantee in a form by a scheduled nationalised bank located inside Odisha acceptable to the Engineer in amount and currency equivalent to the advance payment.

Interest on Advance Payment [10% (ten percent) per annum] [47.2]

The advance shall be repaid with percentage deduction from the running bill certified by the Engineer under the contract. The deduction will start from immediate next running bill.

- 25 The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: [CL. 48]
- SD two (2) per cent of contract price (EMD 1% & ISD 1%) plus Rs..... (to be decided after evaluation of the bid) as performance security in terms of ITB Clause 32 & 33. (as per codal provision)
- The standard form of Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.
- 26 The date by which "as-built" drawings (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be. [Cl.53]
27. The amount to be withheld for failing to supply "as built" drawings by the date required is **Rs.1.00 Lakhs**. [Cl.53.1]
28. The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the work shall be -20% [55.1]

SECTION 5

TECHNICAL SPECIFICATION

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

(To be included by TIA)

**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.
Scope of work, detail technical specification & design criteria should be prepared by the TIA
as per the need of water supply project according to A/A & T.S.**

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 Engineer-in-charge. 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 Engineer-in-charge to be used for the centering and shuttering of the structures.

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.

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

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.

All the work including supply of materials to be executed as per relevant IS specification and direction of Engineer-in-charge.

The surplus earth and debris should be lifted after completion of work and proper levelling of site as directed by Engineer-in-charge without any extra claim.

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 mtr / it must be ensured to be taken down to a firm soil and below weathering effects.

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 Engineer-in-charge of the Department.

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.

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.

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.

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.

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.

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 Engineer-in-charge can alternate the drawing from safety point of view. If the design/drawing is given by the department then it is binding upon the contractor.

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 SUPERINTENDING Engineer concerned. 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.

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.

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 scrutinized 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.

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 Engineer-In-Charge, the same are required to be carried out. All such tests shall be carried out in Government Lab or laboratories approved by the Engineer-in-charge 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 Engineer-In-Charge. 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. Materials, if rejected by the Engineer-In-Charge, shall be immediately removed from the site of work. If they are not removed within twenty four hours of receiving such intimation, Engineer-In- Charge shall get the same removed at contractor's cost. The Engineer-In-Charge 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.

Approval to the samples of various materials given by the Engineer-In-Charge 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 Engineer-In-Charge.

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 Engineer-in-charge.

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.

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 Engineer-in-charge 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.

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.

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.

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 Engineer-in-charge.

The contractor shall maintain a regular account of receipt and use of controlled materials

purchased by him and or supplied by the department.

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.

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 mt. 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.

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 Engineer-in-charge shall be final and binding to the contractor.

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 Engineer-in-charge 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.

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.

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.

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

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

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.](#)

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 –

SCOPE OF WORK & TECHNICAL SPECIFICATION OF PACKAGE TREATMENT PLANT -

Supply, installation, testing and commissioning of a package treatment plant of capacity 0.2-0.3 MLD comprising coagulant / polymer dosing system, chlorination / hypo dosing system, static mixing flocculation tank (SMFT), lamella clarifier, , multi grade filter, sludge transfer-cum-recirculation pump, filter backwash pump set etc for treatment of raw water being collected.

The above scope of works is not exhaustive but gives only an idea about the type of work involved. Any other items/ works, which have not been specifically mentioned but required for completeness and soundness of the systems shall be automatically covered within the scope of work & no extra claim shall be entertained due to such coverage.

The above works shall have to be executed in accordance with the detailed scope of work. Design criteria & specifications given as per approved drawing & other conditions mentioned elsewhere in the DTCN & subsequent correspondences made if any.

Internal Electrification of pump house & other components ::

The internal electrification has to be completed as per the specification mentioned below and as per direction of Engineer-in -charge. After completion of the work the contractor has to make the electrical installation inspected by the competent authority for Installation, Testing & Commissioning, O&M of Packaged WTP in side the pump house as per direction of Engineer-in-Charge and as per requirement at WTP and Source Site. Due to erratic power supply provision has been made for supplying, fitting, fixing, commissioning & testing of oil cool automatic Servor Stabilizer of KVA capacity in pump as per the direction of Engineer-in-charge having input 150-450 volt and steady output of 450 volt with the existing available input including all accessories, cost of material, labour , carriage , T&P , etc all complete. **The works are to be done for internal electrification of pump house .**

3. Construction of ltr capacity RCC Clear Water Reservoir :

- a. Supplying of all labour, T&P, material for soil testing , supply of design, drawing , construction, erection, testing & commissioning etc. of RCC Clear Water Reservoir of ltrs capacity with spherical dome using R.C.C M-25 , 2nos ISI marked 100mm dia CI sluice valve, 1no of 100mm dia butter fly valve & it's RCC valve chambers as per approved drawing, supplying, fitting & fixing of 80/100mm dia medium grade GI pipe Tata/Jindal make conforming to IS specification of required length from WTP to CWR & CWR to distribution main including CI in-let, out-let, over flow & washing line of CWR, 40mm dia structural stainless steel hand rail around dome and landing etc. and stainless steel ladder inside and outside the CWR, lightning arrester conforming to IS specification, digital water level indicator, 100mm dia CI puddle collar, 0.6 m dia CI manhole cover at dome , RCC vent with brass jally etc. complete as per direction of the Engineer - in- Charge. (The contractor shall execute the work after preparing the design and detail drawing in 5 sets from qualified engineer and to approve all structural design & drawing from State Technical Agency(STA) IGIT, Saranga/ CET, BBSR/ VSSUI, Burla/ NIT, Rourkela/ IIT, BBSR at his own cost). **Soil test (UDS & SPT in alternate depths minimum upto 12.0 m depth) should be conducted by the contractor through registered firm/ govt. quality control laboratory of Odisha before preparation of design & drawing of CWR. The photograph of the Soil test with permanent B.M should be submitted to the undersigned after duly certified by SDO/JE/AE and sample should be collected in presence of the Assistant Engineer/ Junior Engineer concerned. Free swelling index of the soil also determines the type of footing, so photograph of FSI test being carried out at the laboratory with 1st reading & last reading must be attached with soil test report. The design, drawing and soil test report should be furnished within 15 days from the date of issue of this letter.**

The above descriptions given for the said work are not exclusive but indicative which shall not relieve the contractor for any such work arise during execution as per site condition or as desired by engineer-in-charge.

4. Rising Main and Distribution System

supplying, fitting & fixing of 80/100/150mm dia medium grade GI pipe Tata/Jindal make confirming to IS specification of required length from WTP to CWR & CWR to ESR/OGR/distribution main

5. Installation of Pump and Motors in Clear Water Reservoir

Supplying, fitting, fixing, testing & commissioning of ISI marked star labeled three phase vertical Multi Stage/ Horizontal stainless steel submersible pump & motor set- 2 Nos of reputed make like(KSB/Kirloskar/Crompton/Texmo/CRI etc. make) confirming to IS - 8034/76 along with standby & required accessories having duty of discharge of ... **LPS & mtr** Head suitable for Clear Water Reservoir including all labour, T&P, material, carriage. The required control panel board should have ISI marked and reputed make(BCH , Havels , L&T etc) suitable for above pump having proper locking system, contactor, Volt meter, Ampere meter, weather proof auto manual switch, shunt capacitor, phase indicator lamp, selector switch & light on-off switch, single phase preventer etc. BCH/Havels/Finolex make ISI marked PVC insulated & sheathed heavy duty 4/6 mm² three core flat cable with copper conductor-80m long from submersible motor to pump house should be encased with 32mm dia HDPE pipes to be laid below 0.60m from ground level. The 25 mm² x 3 1/2 core round armored cable with aluminum conductor of 30m length for connecting DP to main switch is to be of BCH/Havels/Finolex make. Fitting , fixing and lowering of pump set by 80 mm dia GI (Medium Grade) Tata/Jindal make Column pipe (8 nos) of 3.00 m long confirming to IS specification with galvanized flange, fittings(required GI (M)short piece ,R/S etc.) rubber insertion , 6 mm² stainless steel flexible wire rope, Galvanized MS Clamp for 80mm dia pipe of size 4mmx75mmx350mm, G I Nut & Bolt ,connecting the column pipe to the rising main through 80 mm dia G I (medium grade) Tata/Jindal make pipe with accessories for required length including fixing of valves and 15 mm dia 10 kg / cm² brass pressure gauge 1 no to be fixed in the pump house through 16 mm dia SCH. 80 ASTM PVC pipe laid below GL upto pump house and concealed inside wall etc. Complete for each source with testing, trial running & commissioning as per direction of the Engineer - in- Charge.(Supplier has to test & confirm the rated duty of pump & motor at site before & after installation providing required instruments)

The above descriptions given for the said work are not exclusive but indicative which shall not relieve the contractor for any such work arise during execution as per site condition or as desired by engineer-in-charge. As per **Annexure G**

6. Annual Maintenance of Packaged Water Treatment Plant

All materials, components of the Packaged Water Treatment Plant during the period of maintenance shall be the property of Gram Panchayat / VWSC where the system is installed.

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 after the date of completion 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 Treated Supply Water @ **70 LPCD** taking supply hour as 8 hour/day without facing any problem. The operation and maintenance schedule of the Packaged Water Treatment Plant during the 5 years contract period shall be as detailed below.

5 years maintenance period shall begin on the date of actual completion of **work of** the Packaged Water Treatment Plant. The requisite numbers of qualified and trained personnel are required to be deputed / available in the state.

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

The deputed personnel shall have to keep the record on monthly basis for the Packaged Water Treatment Plant as per format to be supplied after commissioning of the Packaged Water Treatment Plant.

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.

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.

Annual Maintenance Instructions:

The executants shall furnish prior to completion of the works 4 copies of maintenance instruction in Odiya / English for approval and supply 5 sets of the approved manuals of instructions at the time of inspection and taking over of the equipment. These manuals shall properly bound in book form and contain all information, description of equipment, diagram etc. necessary to enable the customer to operate and maintain the whole scheme.

Systems personnel shall be deputed on such basis so that a qualified / trained person with a minimum Technical qualification should be available at site always during the maintenance period.

Contractor shall depute an engineer of their company for the maintenance of the systems who shall be fully responsible for the complete maintenance and optimum operation of the systems. The name and contact nos. of this engineer shall be notified to the Engineer-In-Charge for the purpose of contact, responsibility and correspondence with regard to all trouble shooting.

Replacement & repair of damaged parts shall be carried out immediately during the maintenance period so as to ensure at least 95% uptime.

Systems operation reports in a format prescribed by the Engineer-In-Charge shall be furnished by the contractor on a monthly basis.

9.4.6 The Contractor shall ensure replacement of worn out parts and component during the maintenance period for which purpose the supplier shall carry and maintain minimum inventory of spares at the systems and its works.

Routine, preventive, breakdown & Capital Maintenance :

Routine and Preventive maintenance shall include such checks and maintenance activities monthly / quarterly / half yearly and yearly basis which are required to be carried out on all the components of the systems to minimize breakdown and to ensure smooth and trouble free running of the all systems. The supplier shall be responsible to carryout routine and preventive maintenance and replacement of each and every component/ equipment of the water supply system and he shall provide all labour, materials, consumables etc. for routine and preventive maintenance of his own cost even though there is no complaint arise in that period and to be recorded in a register showing details of running of Plant and consumption of Chemicals & Consumables duly checked by the Asst./Junior Engineer, RWSS and the president of the VWSC or any other committee responsible for the piped water supply in the GP/Village or any other member nominated by the Engineer-in-charge/Block Development officer.

1. Maintenance of BFV/SV/NRV/AV in each month. (The change of gland, nut and bolt etc).or if required within that period. The change of spindle and ball should be made every year.
2. Maintenance of Internal Electrification, The change of relay, kitkat, fuse, capacitor etc in every year or if required within that period.
3. Maintenance of all components (coagulant / polymer dosing system, chlorination / hypo dosing system, static mixing flocculation tank (SMFT), lamella clarifier, , multi grade filter, sludge transfer-cum-recirculation pump, filter backwash pump set etc) of Packaged Water Treatment Plant
- 5 The RCC Clear water Reservoir shall have to be disinfected in every year with proper cleaning.
6. The pumps and motors installed in the CWR shall be removed for overhauling in the manufacturer's approved service centre and to replace the worn out parts at the end of 2nd and 4th year and if required before that. The pump and motor to be replaced in case any major damage occurs and if the repair will be uneconomical as per the direction of engineer-in-charge.
7. The above maintenance activities are binding upon the contractor ,in case of any failure or negligence in the part of the contractor to attend the complain the Department will take up the work under intimation to the contractor and action will be taken as per the condition of contract.

Breakdown maintenance shall mean the maintenance activity including repairs and replacement of any component or equipment of the all systems which is not covered by routine and preventive maintenance and which is required to be carried out as a result of sudden failure / breakdown of that particular component or equipment while the systems is running. The contractor shall be responsible to carry out breakdown maintenance of each and every component of the Packaged Water Treatment Plant and he shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reasons of the breakdown/ failure.

Capital maintenance shall mean the major overhaul of any component or equipment of the Packaged Water Treatment Plant with which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of damage due to any unforeseen reason which needs replacement. The capital maintenance of Packaged Water

Treatment Plant and all civil structures shall normally be planned to be carried out on an annual basis. For this purpose a joint inspection by the contractor and Engineer-In-Charge shall be carried out of all the major components of systems, about two months in advance of the Annual Maintenance period. In order to ascertain as to which components of the systems require capital maintenance. In this regard the decision of the Engineer-In-Charge will be final and binding. However, if the condition of any systems and component warrants its capital maintenance at any other time, a joint inspection of the contractor & Engineer-In-Charge shall be carried out immediately on occurrence of such situation and capital maintenance shall be carried out. If required, in consultation with concerned authorities. The decision of the Engineer-In-Charge shall be final and binding.

All the security deposit and maintenance cost will be released to the Contractor by the SUPERINTENDING Engineer, RWS&S only after recommendation of Asst./Junior Engineer, RWSS

All the cost of labour, materials for repair and replacement during the 5(Five) years maintenance period including one year defect liability period shall be borne by the contractor. The inside and outside of the structures constructed for the Packaged Water Treatment Plant should be kept clean, free from bush and debris and to be a state-of- the-art project for the community.

DETAILS OF OPERATION & MAINTENANCE OF THE PACKAGED WATER TREATMENT PLANTS

The contractors shall operate & maintain the Packaged Water Treatment Plants 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 and distribution system. Repair of rising main valves chambers, watch and ward of head works, treatment unit
2. Supply of consumable like bleaching powder, alum, lime etc as 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 WTP 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 Engineer-in-Charge. for ensuring uninterrupted running of WTP.
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 Engineer-in-Charge in a weekly basis, monthly basis, quarterly basis and yearly basis.

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	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
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	

ANNEXURE

Check Lists for Operation and Maintenance

1. **Source & Intakes**

- i) Monitoring for inflows
- ii) Monitoring for Drawals
- iii) Quality of Raw Water/Algae presence
- iv) Industrial & Domestic Discharge
- v) Action plan for chlorination of raw water

2. **Transmission**

- i) Check for stock of spare pipes and specials and jointing materials for replacement, Chemicals & Consumables
- 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

3. **Treatment Plant**

- i) Flow Meter
- ii) Float sump cleaned of silt
- iii) Calibration and checking accuracy
- iv) Servicing

4. **Chemical Feeding Unit**

- v) Painting alum tanks
- vi) Cleaning of V notch weirs and floats
- vii) Spares for mixing unit
- viii) Inspect Jar test facilities

Flash mixer

- ix) painting
- x) Spares for flash mixer

Flocculator

- xi) Painting
- xii) Lubrication of mechanical devices
- xiii) Non-mechanical - desludging for every six months

Clarifier

- xiv) Overhauling
- xv) Painting prior to monsoon
- xvi) Condition of sludge lines
- xvii) Free movement of telescopic sludge device
- xviii) Check for Alignment of wheels-rubber wheels may be replaced
- xix) Outlet weirs (Biological growth - Algae growth)
- xx) Efficiency of various units
- xxi) Trolley Wheels
- xxii) Lubricating
- xxiii) Reduction gear box
- xxiv) Checking oil
- xxv) Turn table
- xxvi) Checking oil
- xxvii) Vehicle motors
- xxviii) Cleaning of dust
- xxix) Carbon brushes
- xxx) Bearings
- xxxii) Rail / Track
- xxxiii) Gap between two rails and Alignments
- xxxiv) Rubber wheels - Wear & tear, alignment
- xxxv) MS Scrapper & Bolts and nuts
- xxxvi) Squeezes

8 Motors

- Daily checks
- i) Eliminate dirt (Less than 1 000 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

9 Pumps

Daily Checks:

- i) Timing of pump running
- ii) Observe for leakges through stuffing box
- iii) Bearing temperature
- iv) Any undue noise or vibration
- v) Readings of pressure, voltage and current
- vi) **Half Yearly checks**
- vii) Free movement of the gland of stuffing box
- viii) Cleaning and oiling of gland bolts
- ix) Inspection of the gland packing
- x) Alignment of pump and drive
- xi) Cleaning of oil lubricated bearings/or grease lubricated and replacing oil and grease
- xii) Clean and examine all bearings for flows
- xiii) **Annual Checks :**
- xiv) Examine shaft sleeves for wear or scour
- xv) Check clearance at wearing ring
- xvi) Check impeller hubs and vane tips for pitting or erosion
- xvii) Calibration of all instruments and flow meters
- xviii) Check performance of pump Q, H, KW and efficiency
- xix) Check for availability of required tools
- xx) Check for availability of lubricants and other consumables such as gland packing, bolts etc.
- xxi) Check for repair facilities such as pullers, clamps, machinery, welding set, grinder,
- xxii) blower, drilling machine etc.
- xxiii) Records to be kept on the Operations :
- xxiv) Note the water levels in the SR s (for all compartments) at hourly intervals.
- xxv) Note the time and relevant operation of control valves with time of opening and closure or throttling position of the valves.
- xxvi) Note the hourly flow meter readings both on the inlets and outlets
- xxvii) Note the hourly residual chlorine readings of inflow water and outflow water
- xxviii) 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
- xxix) Record on when the reservoir was last cleaned and the cost of materials and labour cost thereof
- xxx) Record on when the reservoir was last painted and the cost of materials and labour cost thereof
- xxxi) Record on when the piping at the reservoir was last painted and the cost of materials and labour cost thereof

10 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

CHECK LIST FOR MAINTENANCE

Name of PWS:

Name of the contractor:

District/ Division:

Block/ GP/ Village:

Date of commission of the Packaged Water Treatment Plant:

Defect liability period from to

Agreement No.:

Maintenance period from to

Date of inspection/ reporting:

Name of person inspected/ reported:

Designation (not below the rank of JE/ AE):

1. Surrounding of pump house, intake well, WTP, UGR, clean & maintain

Yes		No	

2. Painting & coloring done (once a every 2 years)
Month & year to be indicated

3. Log book updated:

Yes	No
Yes	No

4. Leakage in pipeline/ SV/ NRV noticed:

5. No. of stand post functioning:

6. Total no. of stand post:

7. No. of complaint received:

8. No. of complaint attended:

9. Adequate pressure at the highest level:

Yes	No
-----	----

10. PWS out of order due to power failure:

Days	Years
------	-------

11. Packaged water Treatment Plant out of order due to mechanical & other failure:

Days	Years
------	-------

Signature of JE/ AE

Verified & found correct & recommended for payment:

Signature of AE/ AEE/ DEE

Accepted for payment:

Signature of EE

NB: *In case AE/ AEE/ DEE do not agree to the report then he shall return the report to the reporting officer with reason.*

SPECIFICATION

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.

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

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

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.

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.

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 Engineer-In-Charge.

Cement Concrete

The concrete shall be in grade designated as under:

GRADES OF CONCRETE

Group Designation	Grade	Specified Characteristic Compressive Strength
		of 150 mm Cube at 28 Days in N/mm ²
Ordinary Concrete	M10	10
	M15	15
	M20	20
Standard Concrete	M25	25
	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 Engineer-in-charge. 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 of 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 the each components 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.

RCC.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 Engineer-in-charge.

(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 covers 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 (10 kg/sqcm) 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 (10 kg/sqcm) 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 / sqcm) suitable rating. BS:5155, AWWA:C-504, Body: CI. Disc: CI, Spindle:SS AISI_410

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 SUPERINTENDING 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 Engineer-in-charge 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 Engineer-in-charge.

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.

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 confirming to I.S 9283-1979 or latest capable of operating on 415 + 6% volts. 3phase 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 confirm to IS 694 (Part-III) 1964 or latest. The flanged column pipe shall confirm to IS 694 (Part-III) 1964 or latest. The flanged column pipe shall confirm 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 form 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 later 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 is 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.

3.16) Specification: (With reference to package treatment plant as envisaged in 1 (i) supra.

Process Description:

Raw water having turbidity 100 - 1000 NTU collected from river through Infiltration gallery and Intake well will be pumped by the existing raw water pump sets to the Static Mixer (Flash mixer) cum Flocculation Tank (SMFT). Alum / Polymer, Lime and Chlorine / Sodium Hypochloride will be dosed before the water enters into SMFT on line with the help of dosing system. In SMFT the coagulation and flocculation will take place. After that water will enter to the Lamella Clarifier to separate the suspended solids present in the water. The clarified water will go by gravity to the existing clarified water tank and then will be pumped by the pump sets through Pressure Sand Filter to bring down the turbidity to 1 NTU (Maximum 5 NTU). The filter outlet will be interconnected to the distribution network. The total process of Clarifier consists of three steps

Static mixer, Flocculation & Settling. The weir plate should be set horizontally in order to provide a design water level which is lower than the top of the tank along with collecting system, inclined FRP plates, and weir launder with orifice, along with hopper.

The sludge to be formed shall be periodically removed by opening the drain valve in the hopper bottom of the settling tank. Continuous sludge bleed off shall be recommended depending on the suspended solids load, in order to utilize the maximum volume of the settling zone effectively. During the periods of high turbidity, part of the sludge formed shall be recycled back into the flash mixer cum flocculation tank to increase efficiency of the system. The treated water from the lamella shall then pass into a Multi-grade Sand Filter under pressure by pumping for the final reduction of the turbidity to to 1 NTU (Maximum 5 NTU).

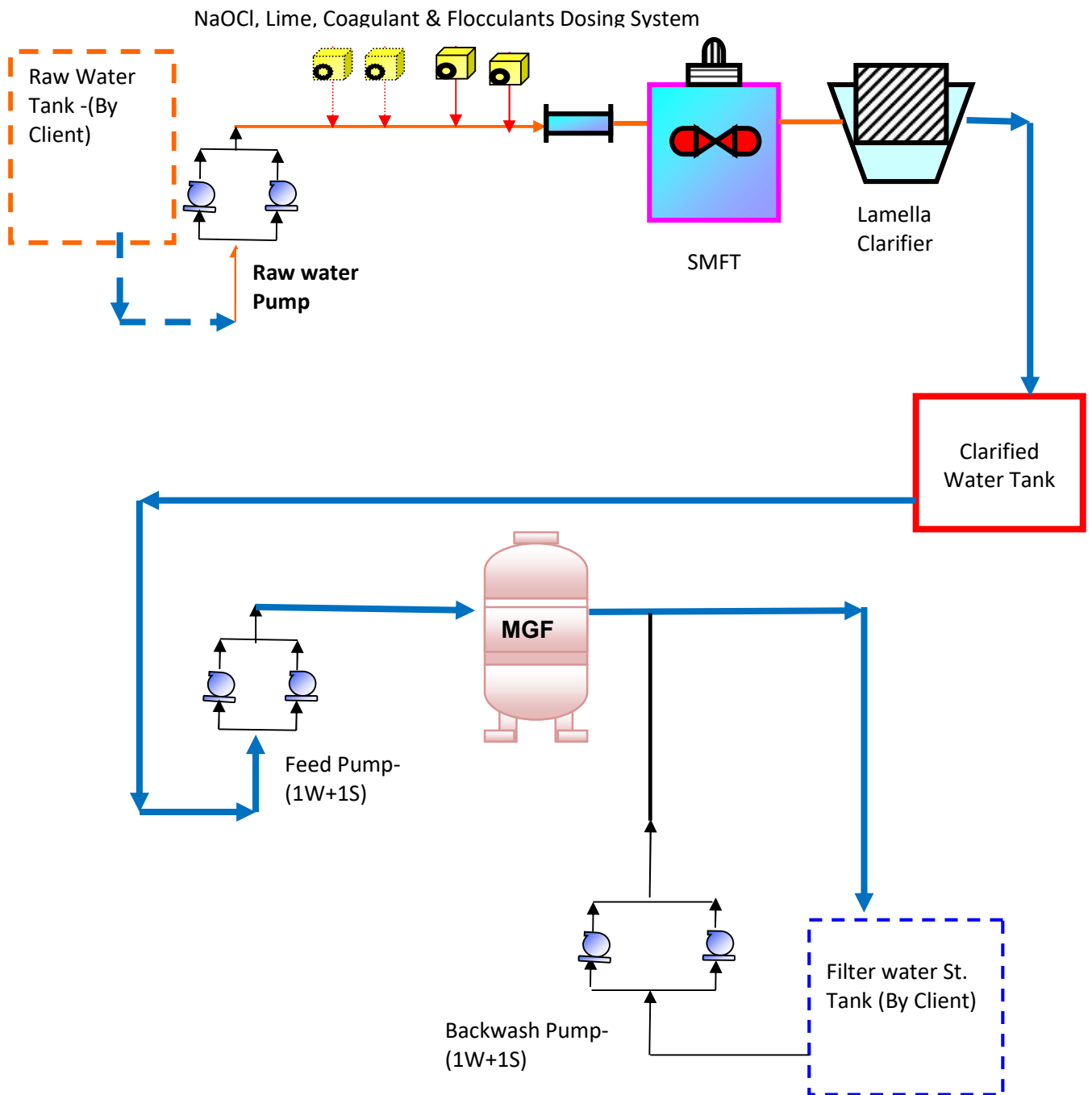
The process scheme :-

Raw water feed pump - m³ / hr (Existing) — SMFT with static mixture & agitator -{Coagulant / Flocculant (Polymer /Lime Dosing system)} — Lamella Clarifier — Clarified Water Tank (RCC)-----Filter feed pump(50m³/hr----- Multi Grade Filter — Chlorine dosing system – Clear water underground reservoir (Existing) - Distribution Network including pumping system (Existing)

INDION Lamella

Making available clean and safe drinking water is an urgent, primary concern, particularly in India's rural areas where it is estimated that a staggering 90 million people in villages do not have access to safe drinking water supplies. The INDION Lamella unit produces safe drinking water from surface water like ponds, lakes, rivers and canals. It is best suited to community requirements and is ideal for small villages and housing colonies, as well as military establishments and resorts/motels.

PROCESS FLOW DIAGRAM



TREATMENT PROCESS

Coagulant Dosing system:-

Coagulation - flocculation processes facilitate the removal of suspended solids, turbidity and colloids. Suspended solids of sand and gravel of size greater than 1mm settle rapidly in water. Clay-like material of the size of a few microns take time to settle; while colloids which refer to particle size in the sub-micron range cannot settle naturally and so the process of coagulation - flocculation brings about the settling of these substances to effect their removal.

The process of coagulation is the first step, which destabilizes the particle's charges. Coagulants with charges opposite those of the suspended solids are added to the water to neutralize the negative charges on dispersed non-stable solids.

Polymer Dosing system:-

Following the first step of coagulation, as second process called flocculation occurs. Flocculation a gentle mixing stage increases the particle size from submicroscopic to visible suspended particles. The microflocs are brought into contact with each other through the process of slow mixing. Collisions of the microflocs particles cause them to bond to produce larger, visible flocks called pinflocs. The flock size continues to build through additional collisions and interaction with inorganic polymers from by the coagulant or with organic polymers adds. INDFLOC Polymer solution is dosed by means of an electronic diaphragm type-dosing pump for flocculation. Flocculation is the agglomeration of destabilized particles into microflocs and later into bulky flock which can be settled. The introduction of reagent called a flocculants or a flocculants aid may promote the formation of the flock.

Chlorination system:-

The raw water will be chlorinated by dosing (NaOCl) Sodium Hypochlorite solution by means of a metering pump. Chlorination serves the purpose of disinfection, in case bacteria are present in raw water. It is also useful for oxidation of ferrous ions to ferric state. The chemical is dosed by means of an electronic dosing pump wherein a facility is available for manual control of stroke length and stroke frequency.

Lamella Clarifier along with SMFT:-

Water containing suspended particles is pumped into the Static Mixer cum Flocculation tank. There will be separate dosing system for dosing chemical like Alum and Polymer for proper coagulation and Flocculation. Water is fed into the Static Mixer cum flocculation tank (SMFT) which will mix the water with the dosing chemical thoroughly. After mixing, the water will enter into the flocculation zone where slow speed agitator will ensure the formation of flocs and it will not allow the particles to settle down. Water will enter into the Lamella Clarifier from the SMFT. The Lamella Clarifier consists of a series of inclined overlapping plates arranged to form a separate sedimentation chamber. The flocculated particles settle down on the plate surface and slide down to the sludge hopper. Near the top of each plate water leaves each cell through a pair of adjustable weir located along each side of the separated tank. The weir plates are set horizontally to provide a designed water level below the top of the tank.

The sludge is periodically removed by opening the drain valve at the bottom of the hopper. Continuous sludge bleed off is recommended for higher suspended solids load and during lean season sludge recirculation will enhance the efficiency of the system. The clarified water out of lamella Clarifier will be stored into the clarified water tank.

Multi Grade Filter:-

The clarified water is pumped through the Multi Grade Filter for reduction of suspended solids. Multi Grade Filter consists of a sand of various grades as a filter media. When the pressure drop across the filter exceeds the preset limit, the filter is backwashed to remove dust and dirt.

Annexure II
DATA- 1 X 50 m³/hr.

1. Raw Water Quality (Typical)

Sl.No	Parameter	Unit	Design Value
1.	pH	-	6.5-8.5
2	Suspended Solids	mg/l	< 1000
3	Total Dissolved Solids	mg/l	< 500
4	Total Hardness	mg/l as CaCO ₃	< 100
5	Total Alkalinity	mg/l as CaCO ₃	< 50
6	Oil & Grease	mg/l	Nil

2. Treated Water Quality

Sl.No	Parameter	Unit	Design Value
1	pH	-	6.5-8.5
2	Suspended Solids	mg/l	< 5
3	Total Dissolved Solids	mg/l	< 500

ANNEXURE – III

SCOPE OF SUPPLY FOR 1 x 50 m3 /hr.

S. No	Particulars	Qty
1	Raw Water Transfer Pumps with Motor	Two No's
2	Coagulants dosing system	Two No's
3	Polymer dosing system	Two No's
4	Sodium Hypochlorite dosing system	Two No's
5	Static Mixer	One No's
6	Slow Mixing Flocculation Tank (SMFT)	One Set
7	Lamella Clarifier	One Set
8	Multi Grade Filter (MGF)	One Set
9	Filter Feed pump	Two No's
10	Sludge Recirculation pump	Two No's
11	Backwash Pump	Two No's
12	Interconnecting piping and valves	One Lot
13	Instruments	One Lot
14	Electrical Panel	One Set

TECHNICAL DATA SHEET & SCOPE OF SUPPLY.

S.NO	EQUIPMENTS	UNIT	SPECIFICATIONS
1	Raw Water Transfer Pump		
	Quantity	No	2
	Feed flow	m ³ /h	50
	Pressure	kg/cm ²	2.0
	MOC		CI
	Type		Horizontal Centrifugal (Non Submersible)
	Make		Johnson/Kirloskar/Eqvt
	It includes base frame , NRV and Pressure Gauges		
2	Coagulant Dosing System		
	Dosing Pump		
	Qty	No:	2(1W+1S)
	Capacity	LPH	15
	MOC		PP
	Dosing tank		
	Qty	No:	1
	Capacity	Liters	500
	MOC		HDPE/Syntax/LDPE/Eqvt
	Agitator		
	Motor	HP	0.5
	Motor RPM		960
3	Polymer Dosing System		
	Dosing Pump		
	Qty	No:	2 (1W+1S)
	Capacity	LPH	50
	MOC		PP
	Dosing Tank		
	Qty	No:	1
	Capacity	Liters	1500
	MOC		HDPE/Syntax/LDPE/Eqvt
	Agitator		
	Motor	HP	1.0

	Motor RPM		100
4	Lime Dosing System		
	Dosing Pump		
	Qty	No:	2 (1W+1S)
	Capacity	LPH	10
	MOC		PP
	Dosing Tank		
	Qty	No:	1
	Capacity	Liters	300
	MOC		HDPE/Syntax/LDPE/Eqvt
	Agitator		
	Motor	HP	0.5
	Motor RPM		960
5	Naocl Dosing System		
	Dosing Pump		
	Qty	No:	2(1W+1S)
	Capacity	LPH	1.0
	MOC		PP
	Dosing tank		
	Qty	No:	1W
	Capacity	Liters	100
	MOC		HDPE/Syntax/LDPE/Eqvt
6	Static mixing flocculation tank (SMFT)		
	Dia	mm	3000
	Height	mm	3900
	MOC of tank		MSEP
	Quantity	no	1
	Retention time	min	20
	Type of detail of agitator mechanism		Gear driven (max 10-15 RPM)
	Motor	HP	1.0
	Motor RPM	RPM	10
	Flocculation mechanism	Lot	1
	Motor ,Gear box, Structural support	Lot	1
	MOC of Agitator shaft		SS304
7	Lamella Clarifier		
	Quantity	no	1
	Design flow rate	M3/hr	50
	Type		Inclined Plate Clarifier
	MOC		MSEP
	Model		11225
	No of plates	nos	23
	MOC of plates		FRP
	Walkway, ladders	Lot	1
8	Sludge Recirculation Pump		
	Quantity	No	2
	Feed flow	m ³ /h	5.0
	Pressure	kg/cm ²	1
	MOC		CI
	Make		Johnson/Kirloskar /Eqvt
9	Multi Grade Sand Filter		
	Qnty	no	1
	Type of Filter		Vertical Cylindrical type with dish end
	Capacity	M3/HR	50
	Operating Pressure	Kg/cm2	3.0

	Diameter of Vessel	mm	1600
	Height of Vessel	mm	1949
	Shell Thickness	mm	4
	MOC		MSEP
10	Clarified Water Tank		
	Capacity	ltrs	50000
	MOC		RCC
11	Filter feed Pump		
	Quantity	no	2 (1 w+1s)
	Capacity	m ³ /hr	50
	Pressure	Kg/cm ²	3.5
	MOC		CI
	Type		Centrifugal
	Make		Kirloskar/Willo/Eqvt
12	Back wash Pump		
	Quantity	no	2 (1 w+1s)
	Capacity	m ³ /hr	50
	Pressure	Kg/cm ²	3.5
	MOC		CI
	Type		Centrifugal
	Make		Kirloskar/Willo/Eqvt
13	Inter Connecting Piping Work		1 Lot
	MOC of Process Piping		MS
	Grade of MS piping		As per IS-1239,Medium duty ERW
14	Chemical Storage cum pump house		
	Overall Size		3500 (W) X 4000 (L) X 3500 (H)
	MOC		Civil
15	Laboratory cum Office room		
	Overall Size		3500 (W) X 3000 (L) X 3500 (H)
	MOC		Civil
16	Electrical Panel With Cables		1 Lot

Other Conditions:-

1. The agency shall furnish the drawings of all the required civil and mechanical structures for approval within 15 days from the date of the work order. On approval of the same, the required civil and mechanical structures of all equipment shall be constructed by the Agency.
2. All Inlet and Outlet pipes for both the Clarifier and Filter shall be provided up to 5 mtr from the outer periphery of the complete treatment unit.
3. All internal cabling , earthing, illumination of the WTP area will be done by the Agency. Electrical connection to panel board will be provided by the Department (up to 5 mtr. In scope of Agency)
4. Required platforms, walkway & ladders shall be provided for easy operation and maintenance. Structural support for piping in and around the plant, Puddle pipes, inserts plates etc shall be supplied and fitted in position.

5. All consumable (Like NaOCl, Alum, Polymer, Acid, Oil, Grease, lubricants) for testing and commissioning purpose only shall be supplied by the agency.

N.B. Specification for other components of work (Except package treatment plant)

The details are envisaged in the B.O.Q. In absence of such details, relevant I.S specification & I.E rules will prevail

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 Engineer-in-charge 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.

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.

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 it's obligation to replace forthwith any instrument/materials found defective during tests at works / trial running period/guarantee period.

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.

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 Engineer-in-charge (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.

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.

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 Engineer-in-charge or his representatives shall be given full access to all tests, the manufacturer shall inform the Engineer-in-charge allowing adequate time so that if he desires his representatives can witness the test. All materials & casting used for the equipment shall be of tested quality. The test certificates shall be made available to engineer-in-charge. 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 Engineer-in-charge 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 Engineer-in-charge or his representative (not below the rank of AEE) and district level laboratory assistant. All the material 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 at 0.2mg/lit at tail end of all distribution line.

4.11 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.

Inspection & Testing: Inspection & Testing: (With reference to package treatment plant as envisaged in 1 (i) & (ii) supra.

For all materials, the Bidder shall furnish Manufacturer's test certificate with each consignment. Materials found defective at the time of delivery and/or verification at the site by the concerned SUPERINTENDING Engineer/Consignee shall not be accepted and the same shall have to be replaced by the Contractor at his/her/their own risk and cost within a reasonable time period from the date of issue of written information to that effect by the concerned Consignee failing which the Consignee will be at liberty to take any action deemed fit in the interest of Govt. Work(s) and the supplier will have no option but to abide by the decision of the Consignee(s).

At site, Testing and inspection shall be carried out as per Indian Standards/ International Standards in presence of Engineer-in-Charge, Bidder and manufacturer. The Bidder shall detail out the codes and standards in accordance with which the testing shall be carried out.

All equipments, labour, tools & tackles, instruments and other facilities for testing shall be provided by the Bidder. He shall also maintain records of all the tests and furnish copies of the same to the Department. The Department reserves the right to test any material at any of the reputed laboratories if necessity arises & the cost of such test(s) shall be borne by the Bidder & rejected materials shall have to be replaced by the Bidder by approved material at his cost.

Annexure-A

Sl. No.	Description of Items	Quantity	Unit	Rate	Amount
1	<p>RPWS Scheme to Jajespanga Design,Supply, Installation, Testing & Commissioning of Packaged Treatment Plant (Unconventional Type) of different Capacity with 16 hrs operation comprising of Lamella Clarifier, Static Mixture Flocculation Tank, (SMFT) Multi Grade Filter (MGF) with best quality filter media, Lime/ Coagulant/ Polymer Dosing System, Hypo Chloride Dosing System, Raw Water Feed Pump/ Clear Water Transfer Pump (Either/or) Sludge Tranfer-cum- Recirculation system, Filter Feed Pump and Back wash Pump including all fittings like Valves and other special fittings and Electrical Power Supply to the different supplied units with MCB Pannel, internal Electrifications with lighting arrangements within Treatment Plant Site with provision of Chemical Storage and Water Testing Laboratory facility should be from a reputed Manufacturer/ Authorized Distributor/ Authorized Dealer confirming to relevant IS Codes and certified by ISO - 9001-2008 and 14001. It also includes cost of Civil Foundation, Interim Clarified Water Tank, inter-connecting Pipe Lines from Raw Water Inlet to CWR and applying internal epoxy paint on the supplied equipments 0.20 Mld Capacity</p>	1.00	No	₹ 30,00,000.00	3000000.00
2	<p>Designing, Testing and commissioning of R.C.C Under Ground Clear Water Reservoir of 50000 Ltr Capacity with suplying fitting, fixing of all materials, labour with fitting and fixing of sluice valves, Puddle collar, M.S / Aluminium stair , M.H cover,Jally as per specification etc. including testing, commissioning and clearance of site as per instruction Engineer-in-Charge. N.B-The tenderer will have to submit detailed drawing, design and soil testing report from competent Government approved authority for the UGR after making Agreement with the Superintending Engineer, RWS&S Division, Phulbani before execution of the work.</p>	1.00	No	₹ 6,23,451.00	623451.00
3	<p>Supplying all materials, Labour, T&P and providing Pumping arrangement from CWR to Rising Main including supply of all valves, Pumps, Panel Boards, Cable etc and connecting to existing rising main complete.</p>	1.00	Item	₹ 1,63,305.00	163305.00
4	<p>Operation and Maintenance for 5 Years on Item No: 1 @ 5% of Basic Cost / Year.</p>	5.00	Yr	₹ 1,50,000.00	750000.00

5	<p>RPWS Scheme to Ladadi Design,Supply, Installation, Testing & Commissioning of Packaged Treatment Plant (Unconventional Type) of different Capacity with 16 hrs operation comprising of Lamella Clarifier, Static Mixture Flocculation Tank, (SMFT) Multi Grade Filter (MGF) with best quality filter media, Lime/ Coagulant/ Polymer Dosing System, Hypo Chloride Dosing System, Raw Water Feed Pump/ Clear Water Transfer Pump (Either/or) Sludge Tranfer-cum- Recirculation system, Filter Feed Pump and Back wash Pump including all fittings like Valves and other special fittings and Electrical Power Supply to the different supplied units with MCB Pannel, internal Electrifications with lighting arrangements within Treatment Plant Site with provision of Chemical Storage and Water Testing Laboratory facility should be from a reputed Manufacturer/ Authorized Distributor/ Authorized Dealer confirming to relevant IS Codes and certified by ISO - 9001-2008 and 14001. It also includes cost of Civil Foundation, Interim Clarified Water Tank, inter-connecting Pipe Lines from Raw Water Inlet to CWR and applying internal epoxy paint on the supplied equipments 0.20 Mld Capacity</p>	1.00	No	₹ 30,00,000.00	3000000.00
6	<p>Designing, Testing and commissioning of R.C.C Under Ground Clear Water Reservoir of 50000 Ltr Capacity with suplying fitting, fixing of all materials, labour with fitting and fixing of sluice valves, Puddle collar, M.S / Aluminium stair , M.H cover,Jally as per specification etc. including testing, commissioning and clearance of site as per instruction Engineer-in-Charge. N.B-The tenderer will have to submit detailed drawing, design and soil testing report from competent Government approved authority for the UGR after making Agreement with the Superintending Engineer, RWS&S Division, Phulbani before execution of the work.</p>	1.00	No	₹ 6,23,451.00	623451.00
7	<p>Supplying all materials, Labour, T&P and providing Pumping arrangement from CWR to Rising Main including supply of all valves, Pumps, Panel Boards, Cable etc and connecting to existing rising main complete.</p>	1.00	Item	₹ 1,63,305.00	163305.00
8	<p>Operation and Maintenance for 5 Years on Item No: 1 @ 5% of Basic Cost / Year.</p>	5.00	Yr	₹ 1,50,000.00	750000.00

9073512.00

GST will be paid / deducted as applicable.

SECTION 6

SECURITIES AND OTHER FORMS

BID SECURITY (BANK GUARANTEE)

Annex - B

WHEREAS, _____ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated _____ [date] for the construction of _____ [name of Contract hereinafter called "the Bid"].

KNOW ALL PEOPLE by these presents that We [Name of Bank] of ----- [name of country] having our registered office at ----- (hereinafter called "the Bank") are bound unto _____ [name of Employer] (hereinafter called "the Employer") in the sum of _____ * for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20.

THE CONDITIONS of this obligation are:

- (1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

OR

- (2) If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid validity:
 - a. fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - b. fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders; or
 - c. does not accept the correction of the Bid Price pursuant to Clause 27.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date-----, i.e ----- days after the deadline for submission of Bids as such dead-line is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____

SIGNATURE _____

WITNESS _____

SEAL _____

[Signature, name and address]

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

** 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.

BANK GUARANTEE FOR ADVANCE PAYMENT

To

_____ [Name of Employer]
_____ [address of Employer]
_____ [name of Contractor]

Gentlemen:

In accordance with the provisions of the Conditions of Contract CL no.47 ("Advance payment") of the above mentioned Contract, _____ [name and address of Contractor] (hereinafter called "the Contractor") shall deposit

with _____ [name of Employer] a bank guarantee to guarantee his proper _____ and faithful performance under the said Clause of the Contract in an amount of _____ [amount of Guarantee]

* _____ [in words].

We, the _____ [bank or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ [name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding _____ [amount of guarantee]* _____ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Works to be performed there under or of any of the Contract documents which may be made between

_____ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal: _____

_____ Name of Bank /
Financial Institution: _____

Address: _____

Date: _____

* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

PERFORMANCE BANK GUARANTEE

To

_____ [name of Employer]

_____ [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of _____ [amount of guarantee]* _____ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

UNDERTAKING

I the undersigned do here by undertake that our firm M/s.....
..... Agree to abide by this bid for a perioddays for the date
fixed for receiving the same and it shall be binding on us and may be accepted at any time before the
expiration of that period.

(Signed by an authorized officer of the Firm)

Title of Officer

Name of the firm

DATE

SECTION-7

DRAWINGS

Indicative GAD with Technical Details/Specifications to be attached

SECTION-8
PROJECT EXECUTION & SUPERVISION

Project Execution & Supervision Aspects, Contract Management Framework & Payment Schedule

A. PROJECT EXECUTION & SUPERVISION ASPECTS :

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 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.

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.

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 :

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.

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 augmentation/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 Engineer-in-Charge 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.

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) Certifying additional cost;
- (b) Determining an extension of time;
- (c) 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;
- (d) Fixing rates or prices;
- (e) Approving programme for execution of works; and,
- (f) Suspension of works.

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.

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.

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.

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.

Payment to the Contractor will be released as per the following break up schedule

Payment to the contractor as per break up schedule mentioned in Section 3 & 8 may please be read as follows & all other terms & condition mentioned under the clauses remain unaltered.

**PRICE BREAK-UP SCHEDULE OF PACKAGED WATER TREATMENT PLANT
(UN CONVENTIONAL TYPE)**

SI no	Description of items	Payment Stage	Percentage of Payment
1	2	3	4
1	Design, supply, installation, testing & commissioning of packaged water treatment plant (unconventional type), Clear Water Reservoir, Pumping Unit excluding O&M for following PWS Scheme		
(i)	Nilungia	After Commissioning	100% as per BOQ excluding OM
(ii)	Tiangia-1	After Commissioning	100% as per BOQ excluding OM
(iii)	Tiangia-2	After Commissioning	100% as per BOQ excluding OM
(iv)	Batingia	After Commissioning	100% as per BOQ excluding OM

However, in no case, the total payment made to the bidder shall exceed the Lump Sum Contract Value for which the agreement is signed except change in scope, compensation or bonus etc. as admissible as per the contract.

Detail Project/Work accounts will be kept by the concerned Divisional Accountant, who shall perform his duties as per rules of OPWD Code. All bills furnished by the bidder shall be routed through the Divisional Accountant to the Superintending Engineer for payment.

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.

Payment to the Contractor will be released as per the break up schedule as stated earlier

2. Operation and maintenance works (after completion of one year defect liability period.

- 30% on successful completion of 1st year O&M
- Cumulative 45% on successful completion of 2nd year O&M
- Cumulative 60% on successful completion of 3rd year O&M
- Cumulative 75% on successful completion of 4th year O&M
- Cumulative 100% on successful completion of 5th year O&M

However, in no case, the total payment made to the bidder shall exceed the Lump Sum Contract Value for which the agreement is signed except change in scope, compensation or bonus etc. as admissible as per the contract.

Detail Project/Work accounts will be kept by the concerned Divisional Accountant, who shall perform his duties as per rules of OPWD Code. All bills furnished by the bidder shall be routed through the Divisional Accountant to the Superintending Engineer for payment.

3. Annual Maintenance of Packaged water treatment plant:-

All materials, components of the Packaged Water Treatment Plant during the period of maintenance shall be the property of Gram Panchayat /VWSC where the system is installed.

The break down maintenance of the entire system including supply of necessary spare parts, equipments, chemical, if any are under the coverage of warranty clause of the General Terms and conditions and special terms and condition for a period of 5 years inclusive of defective liability for one year in such a manner that the plant should deliver required quantity of water.

05 Years of maintenance period shall begin on the date of 100% commissioning of work.

During the maintenance period of 5 years of the systems, if there is defect in any component including Lamela clarifier static mixture flocculation tank (SMFT), multigrade filter media Lime/ coagulant polymer losing system, hypo chloride losing system raw water feed pump, clear water treatment pump, sludge transfer-cum-recirculation system filter feed pump and back wash pump including all fittings & valves etc. the agency shall be responsible for immediate replacement / rectification. The damaged component is to be 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 a new one at their own cost. However, in case the pump and motor needs replacement during 1 year of operation/warranty period whichever is more the same has to be done by the agency. However, regular repair of pump & motor losing of chemicals as and when required shall be done by the agency during 05 years of O&M Period.

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 in case of down loading Rs.....	As per NIT			
02.	E.M.D for Rs..... (Scanned copy of the financial instrument shall be furnished)	DTCN Clause No.16.1 of IFB			
03.	Copy of valid Registration Certificate	DTCN Clause No.3 of IFB			
04.	GST Registration Certificate	DTCN Clause No.12 (vi)			
05.	Copy of PAN Card	DTCN Clause No.12 (vi)			
06.	No Relationship Certificate	DTCN Clause			
07	CA Certificate	DTCN Clause 4.2 (b)			
08.	Works Experience -	4.4 (A)(a)			
(a)	List of similar works executed during last 5 years	Note(v) of 4.4(A) & Ann-II			
(b)	Works in hand-Approximate value of existing commitment and ongoing works.	1.3 of Appendix			
(c)	Bid Capacity Calculation Sheet	4.6 of IFB			
09.	Information regarding current litigation, debaring / expelling of the tender or abandonment of the work by the tenderer	1.1 of Appendix & Annexure-IV			
(b)	Affidavit / Declaration	12 (iv) & 19.2 (vi)			
10.	Work schedule in the form of Bar Chart	4.2 (k) of IFB & 1.13 of Appendix			
11	Solvency Certificate from bank	1.9 of Appendix & 4.2 of ITB			

Superintending Engineer
RWSS Division, Phulbani