



सीएमपीडीआई
cmpdi

A Mini Ratna Company

TENDER DOCUMENT

FOR

**DESIGN, SUPPLY, CONSTRUCTION, INSTALLATION, AND
COMMISSIONING OF WATER TREATMENT PLANT(400KLD)**

(Turnkey Work)

AT

CMPDI COLONY COMPLEX, RANCHI



February, 2022

CENTRAL MINE PLANNING AND DESIGN INSTITUTE LTD.

(A SUBSIDIARY OF COAL INDIA LTD.)

HEAD QUARTERS, KANKE ROAD, RANCHI-834008 (JHARKHAND)

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NIT संख्या: 09 of 2021-22

दिनांक: 07.02.2022

Tenders are invited on-line under two part system on the website <https://coalindiatenders.nic.in> from the eligible bidders having Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA, for the following work:

Description of work Location	Estimated Cost of Work (Including GST) Approx. (In Rs.)	Earnest Money (In Rs.)	Period of Completi on (In Days)
Design, Supply, construction, Installation, and Commissioning of Water Treatment Plant(400 KLD) and all complete at CMPDI Colony Complex , Ranchi, (Turn key Basis) & Comprehensive operation Maintenance(COAMC) for 5 years after one year warranty period	Rs.91.36 Lakhs	Rs 1,14,200/-	210 Days + COAMC 6 years

(i). For Site visit of location of work, the prospective bidder(s) may contact

Tender inviting authority	Contact Person(s)/Tender Dealing Officer(s)	
General Manager(Civil) CMPDIL, Kanke Road, Ranchi-834008	Shri Rakesh, Dy Mgr(Civil) CMPDIL(HQ), Kanke Road, Ranchi-834008 M-9644594972	Shri Satyendra Singh, CM(Civil) CMPDIL(HQ), Kanke Road, Ranchi Ranchi-834008 M-8235903689

2. Time Schedule of Tender:

Sl. No	Particulars	Date	Time
a.	Tender e-Publication date		
b.	Document download start date		
c.	Document download end date		
d.	Bid Submission start date		
e.	Bid submission end date		
f.	Start date for seeking Clarification on-line		
g.	Last date for seeking Clarification on-line		
h.	Date of Pre-bid meeting (if any)		
i.	Bid Opening date		

Details available on
<https://coalindiatenders.nic.in>

Tender Inviting Authority



cmpdi
A Mini-Ratna Company

सेन्ट्रल माईन प्लानिंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड
(कोल इंडिया लिमिटेड की अनुबंधी कंपनी / भारत सरकार का एक लोक उपक्रम)

गोन्दवाना प्लेस, कॉके रोड, राँची - 834 031, झारखण्ड (भारत)

Central Mine Planning & Design Institute Limited

(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)

Gondwana Place, Kanke Road, Ranchi - 834 031, Jharkhand (INDIA)

Corporate Identity Number (CIN): U14292JH1975GOI001223

NIT संख्या.:09 of 2021-22

दिनांक: 07.02.2022

निविदा सूचना

Notice Inviting Tender

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Details available on
<https://coalindiatenders.nic.in>

Note: The auto extension of submission of bid shall be applicable as per details mentioned in clause No.14 of NIT.

3.0 EARNEST MONEY DEPOSIT

The bidder will have to make the payment of EMD through ONLINE mode only.

3.1 In Online mode the bidder can make payment of EMD either through **NET-BANKING** from designated Bank(s) or through **NEFT/RTGS** from any scheduled Bank(s).

NET-BANKING: In case of payment through net-banking the money will be immediately transferred to CIL/ Subsidiary's designated Account.

NEFT/RTGS: In case of payment through NEFT/RTGS from any scheduled bank(s), the bidder will have to make payment as per the Challan(s) generated by system on e-Procurement portal. The payment of EMD through NEFT/RTGS mode should be made well ahead of time to ensure that the EMD amount is transferred to CIL/ Subsidiary account before submission of bid.

3.1.1 The Bidder will be allowed to submit his/her/their bid only when the EMD is successfully received in CIL/ Subsidiary's designated account and the information flows from Bank to e-Procurement system.

3.1.2 In online payment of EMD, if the payment is made by the bidder within the last date and time of bid submission but not received by CIL/ Subsidiary within the specified period due to any reason(s) whatsoever then the bid will not be accepted. However, the EMD will be refunded back to the bidder.

3.1.3 Deleted

3.2 If the bidder defaults in satisfying Techno-commercial criteria, full EMD will be forfeited.

3. Pre-bid Meeting:

The pre-bid meeting if applicable shall be held in the office of Tender Inviting Authority, on the scheduled date & time, if specified in the NIT. The purpose of the pre-bid meeting is to clarify the issues and to answer the questions on any matter that may be raised at that stage. Non-attendance at the pre-bid meeting will not be a cause for disqualification of bidder and it shall be presumed that the bidder does not require any clarification. The management shall circulate proceedings of the pre-bid meeting, if held.

4. Clarification of Bid:

The bidder may seek clarification on-line within the specified period. However, the management will clarify as far as possible to the relevant queries.

5. User Portal Agreement:

The bidders have to accept the on-line user portal agreement which contains the acceptance of all the Terms and Conditions of NIT and tender document, undertakings and the e-Procurement system through <https://coalindiatenders.nic.in> in order to become an eligible bidder. This will be a part of the agreement.

6. Eligible Bidders:

The invitation for bid is open to all bidders including an individual, proprietorship firm, partnership firm, company, having eligibility to participate as per eligibility criteria stipulated in clause No.8 of NIT and having Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA.

Note: Joint Venture shall not be allowed for participation in the bid with estimated cost of work put to tender up to Rs. 5.00 (two) crores.

7. Eligibility Criteria:

A. Work Experience:

The intending tenderer must have in its name experience of having successfully completed similar works during **last 7 (Seven) years** ending last day of month previous to the one in which bid applications are invited i.e. e-publication date on procurement portal should be any of the following.

- i) Three similar completed works each costing not less than the amount equal to 20% of the estimated cost put to tender.

Or

- ii) Two similar completed works each costing not less than the amount equal to 25% of the estimated cost put to tender.

Or

- iii) One similar completed work costing not less than the amount equal to 40% of the estimated cost put to tender.

The definition of similar works shall be

“Supply, Installation, Testing and Commissioning of Water treatment Plant (Min. 400 KLD) or sewage treatment Plant (Min 400 KLD) –Turnkey work”

The intending tenderer must submit documentary evidence in support of above in the form of (i) certified copy of work order, (ii) completion certificate indicating value and period of work, The TDS certificate be submitted during clarification, if any.

Note: 1). The experience towards overseas jobs, if submitted, should be vetted/endorsed by the relevant* embassy/high commission concerned, towards authenticity of document in English or translated in English language.

(*Relevant embassy/High Commission means the embassy/High Commission in India of the country where the bidder has executed the said work or country of origin of the bidder OR the Indian embassy in the country where bidder has executed the work or country of origin of the bidder.)

2) Joint Venture, shall be allowed for participation in the bid with estimated cost Above Rs. 5.0 Crores.

The above qualification criteria shall be fulfilled by JV in the following manner.

The qualifying criteria parameter e.g. experience of the individual partners of the J.V will be added together as deliberated hereinafter towards fulfilment of qualification criteria related to experience.

a) In case of completion of single work of similar nature costing, not less than the amount equal to 40% of the estimated cost put to tender:-

i) Any of the JV partner shall have the experience of having completed successfully a single work of similar nature equal to 40% of the estimated cost put to tender.

OR

b) In case of completion of two works of similar nature each costing not less than the amount equal to 25% of the estimated cost put to tender :-

i) Any one partner can match the above requirement.

Or

ii) At least two partners should each have completed at least one work of similar nature each costing not less than the amount equal to 25% of the estimated cost put to tender.

OR

c) In case of completion of three works of similar nature, each costing not less than the amount equal 20% of the estimated cost put to tender: -

i) Any one partner can match the above requirement.

Or

ii) Any two partners shall match the above requirement through completion of at least two work by one partner and one work by other partner of similar nature each costing not less than the amount equal 20% of the estimated cost put to tender: -

Or

iii) All the three partners shall match the above requirement through completion of at least one work of similar nature each costing not less than the amount equal 20% of the estimated cost put to tender.

However, during fulfilment of any of the above criteria one of the partner, who is the lead partner shall have:-

i) Maximum participating share in J.V.

and

ii) Experience of having completed successfully a single work of similar nature equal to at least 20% of estimated cost put to tender.

Experience for those works only shall be considered for evaluation purposes, which match eligibility requirement stipulated above, on or before the last day of month previous to one in which tender has been invited (publication date of NIT). The experience of incomplete/ongoing works as on last date of eligibility period will not be considered for evaluation. If the referred work includes construction as well as maintenance after construction, the experience of such work may be considered as 'acceptable' if the construction part is completed as on the last date of 'eligibility period', even if maintenance work is ongoing, and the certificate issued clearly stipulates the same.

Completion of works means completion of works by undertaking entire responsibility from design, Supply, Installation, Construction and Commissioning.

In all the above cases, while considering the value of completed works, the full value of completed work be considered whether or not the date of commencement is within the said seven years period.

Cost of previous completed work(s) shall be given a simple weightage of 5% per year to bring them at current price level, while evaluating the qualification requirement of the bidder. Such weightage shall be considered after end date of completion. The year can be considered as suitable consecutive 365 days till the last day of month previous to one in which bid has been invited. Updating will be considered for full or part of the year (total no. of days / 365) i.e. considering 365 days in a year, till the last day of month previous to one in which bid has been invited.

Data to be furnished by the Bidders:

Start date & end date of each qualifying experience (similar nature)

Work order Number /Agreement

Number of each experience

i. Name & address of

Employer/Work Order Issuing authority of each experience

iv. Percentage (%) share of each experience (In case the experience has been earned by the bidder as a partner in a joint venture firm/partnership firm then the proportionate value of experience in proportion to actual share of bidder in that joint venture firm/ partnership firm will be considered against eligibility else it shall be taken as 100%).

(Note: This shall be adopted in eProcurement Guidelines for Works and Services.)

v. Executed Value of work against each experience

In case the bidder is a Joint Venture, work experience as above may be furnished as the work experience of the bidder.

NOTE: If a bidder participates as a Joint Venture (JV), the benefits as per Public Procurement Policy for MSEs Order-2012 shall not be applicable for them.

B. Financial Turnover

Average annual financial turnover during the last 3(three) years, ending 31st March of 31.03.2020 (previous) financial year should be at least 30% of the estimated cost put to tender.

The intending bidders must submit the Financial Turnover certificate (with UDIN No.) issued by a Practicing Chartered Accountant having a membership number with Institute of Chartered Accountants of India, containing the information as furnished by bidder online.

The foreign partner(s) should submit Financial Turnover certificate based on IFRS (International Financial Reporting Standards) accounting standard certified by a local practicing public accountant/audit firm duly vetted/endorsed by the relevant *Embassy/High Commission concerned, towards authenticity of document.

(*Relevant embassy/High Commission means the embassy/High Commission in India of the country where the bidder has obtained Turnover certificate or country of origin of the bidder OR the Indian embassy in the country where the bidder has obtained Turnover certificate or country of origin of the bidder.)

Note:

i) Financial turnover shall be given a simple weightage of 5% per year to bring them at current price level, while evaluating the qualification requirement of the bidder. Such weightage shall be considered from the end date of financial year. Updating will be considered for full or part of the year (total no. of days / 365) i.e. considering 365 days in a year, till the last day of month previous to one in which bid has been invited.

Joint Ventures shall meet the above eligibility requirement, in the following manner:

The qualifying criteria parameter e.g. financial resources of the individual partners of the J.V. will be added together, for the relevant financial year, and the total should not be less than as spelt out above.

NOTE: The uploaded Turnover Certificate and / or Profit & Loss A/c statement issued by CA should possess Unique Document Identification Number (UDIN). UDIN Generation date should be before the bid submission end date.

NOTE: If a bidder participates as a Joint Venture (JV), the benefits as per Public Procurement Policy for MSEs Order-2012 shall not be applicable for them.

C. Permanent Account Number (PAN): The bidder should possess valid Permanent Account Number (PAN) issued by Income Tax department, Govt. of India.

In respect of the above eligibility criteria the bidders are required to furnish the following information online :

i) Confirmation regarding possessing of Permanent Account Number(PAN) issued by Income Tax department, Govt. of India in the form of Yes / No.

Note : In case of JV, PAN card for each Indian partner of JV and Verifiable Tax Residency Certificate of respective country for each foreign partner or JV itself.

D. Goods and Services Tax (Not Applicable for Exempted Services)

The bidder should be either GST Registered Bidder under regular scheme

OR

GST Registered Bidder under composition scheme

OR
GST unregistered Bidder

In respect of the above eligibility criteria the bidder is required to furnish the following information online:

- i) **Confirmation in the form of Yes/No regarding possessing of required document as enlisted in NIT with respect to GST status of the bidder.**

Note:

- i) *In case of JV a Certificate from a practicing Chartered Accountant having membership number with Institute of Chartered Accountants of India confirming the status of JV w.r.t to GST in compliance with relevant GST rules or GST Registration Certificate of JV.*
- ii) In case the work/service is awarded to a Joint Venture participating in the tender they have to submit PAN, GST registration (as applicable in the tender and for the bidder status) etc. in the name of the Joint Venture after Award of Work/Service before the payment of first running on account bill.
- iii) If turnover of bidder exceeds exemption/threshold limit, the bidder must have GST registration as per GST Act and rules.
- iv) During the execution of the contract if the GST status of the bidder changes, then the payment of GST, if any, to the contractor will be made as per the GST status declared by the bidder during tender stage based on which cost to company has been ascertained or at actuals, whichever is lower.

NOTE: If a bidder participates as a Joint Venture (JV), the benefits as per Public Procurement Policy for MSEs Order-2012 shall not be applicable for them.

Scanned copy of documents to be uploaded by bidder(s) in support of information / declaration furnished online by the bidder against Eligibility Criteria as Confirmatory Document.

E. Purchase Preference under 'Make in India' Policy for "Local supplier".

Purchase Preference under 'Make in India' Policy for "Local supplier". (NOT APPLICABLE WHERE ESTIMATED COST PUT TO TENDER IS LESS THAN 5 LAKHS.)

Public Procurement (Preference to Make in India) vide Order No. P-45021/2/2017-PP (BE-II) dated 16.09.2020, issued by Govt. of India as amended from time to time shall be applicable. Accordingly, provisions of these guidelines are to be modified suitably.

In terms of the above said policy, only 'Class-I Local Supplier' and 'Class-II Local Supplier' shall be eligible to bid and purchase preference shall be given to only 'Class-I Local Supplier'.

The definitions of 'Local Supplier', 'Local Content' and 'Margin of Purchase Preference' as per above mentioned Order are as follows:-

- A. 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- B. 'Class-I Local Supplier' means a supplier or service provider whose goods, services or works offered for procurement, meets the local content minimum 50% as prescribed for 'class -I local supplier' under said order.
- C. 'Class-II Local Supplier' means a supplier or service provider whose goods, services or works offered for procurement, meets the local content minimum 20% as prescribed for 'class -II local supplier' under said order.
- D. 'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for "class-II local supplier" under said order
- E. 'Margin of Purchase Preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference. The margin

of purchase preference is 20%

Note:- L1 means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per tender or other procurement solicitation.

In respect of the above eligibility criteria the bidder is required to furnish the following information online:

Note: -

I. If the estimated value of Procurement is less than Rs. 10 crores, all the Bidders at the time of bidding shall submit either self-certification indicating the percentage of local content in the offered items.

II. If the estimated value of procurement is more than Rs. 10 crores, all the Bidders shall submit along with its bid a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered account (in respect of suppliers other than companies) giving the percentage of local content.

Scanned copy of documents to be uploaded by bidder(s) in support of information / declaration furnished online by the bidder against Eligibility Criteria as Confirmatory Document.

8. **Submission of Bid:**

a. (i). In order to submit the Bid, the bidders have to get themselves registered online on the e-Procurement portal of CIL (<https://coalindiatenders.nic.in>) with valid Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA. The online Registration of the Bidders on the portal will be free of cost and one time activity only. The registration should be in the name of bidder, whereas DSC holder may be either bidder himself or his duly authorized person. The bidder is one whose name will appear as bidder in the e-Procurement Portal.

(ii). The bidders have to accept unconditionally the online user portal agreement which contains the acceptance of all the Terms and Conditions of NIT including General and Special Terms & Conditions, Integrity Pact and other conditions, if any, along with on-line undertaking in support of the authenticity of the declarations regarding the facts, figures, information and documents furnished by the Bidder on-line in order to become an eligible bidder. No conditional bid shall be allowed/accepted.

b. **Confirmatory Documents:** All the confirmatory documents as enlisted in the NIT in support of online information submitted by the bidder are to be uploaded in Cover-I by the bidder while submitting his/her/their bid.

	Eligibility Criteria	Scanned copy of documents to be uploaded by bidder(s) in support of information/declaration furnished online by the bidder against Eligibility Criteria (CONFIRMATORY DOCUMENTS)
1	2	3
1	Work Experience (Ref. Clause No.8(A) of NIT)	Satisfactory Work Completion Certificate issued by the employer against the experience of similar work containing all the information furnished by bidder on-line. In case of Sub-contractor suitable document as per provision of eligibility, if applicable. Work order, BOQ and/or TDS may be sought during clarification or along with deficient documents as per clause 13(B). <i>(In case of JV, Satisfactory Work Completion Certificate against individual partner(s) including Lead Partner of JV as applicable as per details mentioned in clause No. 8.</i>
2	Financial Turnover (Ref. Clause No.8(B) of NIT)	Financial Turnover certificate having a Unique Document Identification Number (UDIN) with Institute of Chartered Accountants of India for last 3 (three) financial years issued by a Practicing Chartered Accountant having a membership number with Institute of Chartered Accountants of India. <i>(In case of JV, turnover certificate for each individual partner of JV)</i>

3	Permanent Account Number (Ref. Clause No.8(C) of NIT)	<p>PAN card issued by Income Tax department, Govt. of India.</p> <p>(In case of JV, PAN card for each Indian partner of JV and Verifiable Tax Residency Certificate of respective country for each foreign partner or JV itself)</p>
4	Goods and Services Tax (GST) Status of Bidder (Not Applicable for Exempted Services) (Ref. Clause No. 8(D) of NIT and BOQ)	<p>The following documents depending upon the status w.r.to GST as declared by Bidder in the BOQ sheet:</p> <p>a) Status: <u>GST Registered Bidder under regular scheme</u> Document: GST Registration Certificate (i.e. GST identification Number) issued by appropriate authority of India.</p> <p>b) Status: <u>GST Registered Bidder under composition scheme</u> Document: GST Registration Certificate (i.e. GST identification Number) issued by appropriate authority of India.</p> <p>c) Status: GST unregistered bidder: Document: A Certificate from a practicing Chartered Accountant having membership number with Institute of Chartered Accountants of India certifying that the bidder is GST unregistered bidder in compliance with the relevant GST rules of. India.</p> <p>[In case of JV a Certificate from a practicing Chartered Accountant having membership number with Institute of Chartered Accountants of India confirming the status of JV w.r.t GST in compliance with relevant GST rules or GST Registration Certificate of JV]</p> <p>Note:</p> <p>i) If turnover of bidder exceeds exemption/threshold limit, the bidder must have GST registration as per GST Act and rules.</p>
5	Legal Status of the bidder	<u>Document(s) covered under any one of the following sub-head(s):</u> <ol style="list-style-type: none">1. Affidavit or any other document to prove proprietorship/Individual status of the bidder.2. Partnership deed containing name of partners.3. Memorandum & Article of Association with certificate of incorporation containing name of bidder.4. Joint Venture agreement as per format in Annexure-IX containing name of partners and lead partner, Power of Attorney to the Lead Partner and share of each partner.
6	Digital Signature Certificate (DSC)	<p>If the bidder himself is the DSC holder bidding on-line then no document is required.</p> <p>However, if the DSC holder is bidding online on behalf of the bidder then the Power of Attorney or any sort of legally acceptable document for the authority to bid on behalf of the bidder.</p>
7	Local supplier status of the bidder.	<ol style="list-style-type: none">I. If the estimated value of Procurement is less than Rs. 10 crores, all the Bidders at the time of bidding shall submit self-certification indicating the percentage of local content in the offered items.II. If the estimated value of procurement is more than Rs. 10 crores, all the Bidders shall submit along with its bid a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered account (in respect of suppliers other than companies) giving the percentage of local content.
8	a.	Undertaking by Bidder/s on his/her/their Letter Head regarding genuineness of the information furnished by him on-line and authenticity of the scanned copy of documents uploaded by him on-line in support of his eligibility, as per the format given in the bid document at Annexure II .

	<p>b. In case of partnership firm/Joint Venture, undertaking as per Annexure-XIII, is also to be submitted and signed by all the Partners of the Partnership Firm / Joint Venture (JV) firm.</p> <p>c. Duly signed and witnessed Integrity Pact in the prescribed format Annexure-X if applicable.</p> <p>d. Undertaking regarding Restrictions under Rule 144 (xi) of the GFRs,2017 by Bidder/s on his/her/their Letter Head as per the format given at Annexure-X is to be uploaded.</p> <p>Note: In case of JV, Integrity Pact shall be signed by all the partners.</p> <p>e. Certificate by Bidder/s on his/her/their Letter Head as per the format given at Annexure XIV is to be uploaded.</p> <p>(In case of JV, Certificate to be uploaded in the Letter Head of JV)</p>
9	<p>Letter of Bid by Bidder/s on his/her/their Letter Head as per Annexure- I.</p> <p>(<i>In case of JV, Letter of Bid to be uploaded in the Letter Head of JV</i>)</p>
10	<p>Any other document to support the qualification information as submitted by bidder on-line.</p> <p>Note: If the bidder is not having any document for uploading in this link, a blank document maybe uploaded by the bidder.</p> <p>Note: Only one file in .pdf format can be uploaded against each eligibility criteria. Any additional/other relevant documents to support the information/declaration furnished by bidder online against eligibility criteria may also be attached by the bidder in the same file to be uploaded against respective eligibility criteria.</p>

c. **Letter of Bid(LoB): Letter of Bid (LoB):** The format of Letter of Bid (as given in the NIT) will be downloaded by the bidder and will be printed on Bidder's letter head and the scanned copy of the same will be uploaded during bid submission in cover-I. This will be the covering letter of the bidder for his submitted bid. The content of the "Letter of Bid" uploaded by the bidder must be the same as per the format downloaded from website and it should not contain any other information, which contradicts the content and spirit of the original format of LoB.

The Letter of bid will be digitally signed by DSC holder submitting bid online and it does not require any physical signature. However, if the Letter of Bid (LoB) bears the physical signature in addition to the digital signature of DSC holder, it will be accepted without questioning the identity of person signing the Letter of Bid.

If there is any change in the contents of Letter of Bid uploaded by bidder as compared to the format of Letter of Bid uploaded by the department with NIT document, then the LoB shall be requested under the head Confirmatory documents and subsequently accepted or rejected as applicable. However inclusion of any additional redundant information by the Bidder in the submitted Letter of Bid(LOB), which does not contradict the content and spirit of original format of LOB uploaded by department will not be a cause of rejection of his/her bid.

d. **Price bid:** The Price bid containing the Bill of Quantity will be in Excel format and will be downloaded by the bidder and bidder will quote the rates for all items on this Excel file. Prior to quoting the rates in the BOQ file, the bidder will select the appropriate status from the following drop down list given in the BOQ:-

- I. Status: GST Registered Bidder under regular scheme
- II. Status: GST Registered Bidder under composition scheme
- III. Status: GST unregistered bidder

The rates quoted by the bidder will be excluding GST and GST component (to be paid by CIL / Subsidiary and/or the bidder) will appear as a separate entity. The component of GST will be taken by the system based on the status of bidder selected by the bidder during bid submission and with the pre-defined business logic given in the BOQ file by the department. This file will be digitally signed and uploaded by the bidder after ascertaining the correctness of facts and figures.

Thereafter, the bidder will upload the same Excel file during bid submission in cover-II. The Price-bid (excluding GST) will be in Item Rate or Percentage Rate or Mixed Rate[combination of Item Rate and Percentage Rate] BOQ format and the bidder will have to quote for all the tendered items. The Price Bid of the tenderers will have no condition. The price bid which is incomplete and not submitted as per instruction given in this document is liable for rejection.

System for decision of L1 bidder

The L1 bidder will be decided based on Overall Quoted Value (i.e. cost to the Company). The system for decision of L1 bidder will be as per following 02(two) cases:-

Case – 1: Supply for which INPUT TAX CREDIT (ITC) is not available to the Company.

For calculation of Overall Bid Value, the GST [CGST, SGST/UTGST, IGST and GST (compensation to state tax)] to be paid by the bidder **or** by CIL/ Subsidiary taken by the system will be added to decide the L1 i.e the ranking of the Bidders will be decided based on rates quoted by the bidders plus GST. This value of the bidder will be “the Cost to Company”.

Then share of GST to be deposited by CIL/ Subsidiary, if any will be deducted from overall bid value to arrive at the Contract value. The Price-bids of the tenderers shall have no condition. The Price Bid which is incomplete and not submitted as per instruction given above is liable for rejection.

Case – 2: Supply for which INPUT TAX CREDIT (ITC) is available to the Company.

For calculation of Overall Bid Value, the GST [CGST, SGST/UTGST, IGST and GST (compensation to state tax)] to be paid by the Bidder **or** by CIL/ Subsidiary taken by the system will be ignored to decide the L1 i.e the ranking of the Bidders will be decided based on rates quoted by the bidders excluding GST. This value of the bidder will be “the cost to Company”.

Then share of GST to be paid by bidder shall be added with overall bid value to arrive at the Contract value. The Price-bids of the tenderers shall have no condition. The Price Bid which is incomplete and not submitted as per instruction given above is liable for rejection.

Note: The bidder should select their GST category as per clause no. 8.D of NIT.

The Tax Invoice raised by the supplier must be in compliance of relevant GST Acts, rules & notifications made thereunder and should bear the GSTIN number for the supply to CMPDIL HQ as given below:

State	Unit / HQ	City	GSTIN (Provisional ID)
Jharkhand	CMPDI HQ	Ranchi	20AAACC7475N1ZI

In addition to above, if any other tax/duties are levied over supply of such goods or services in future, it shall be paid extra.

E-way Bill: The e-way bill required in connection with supply of goods or services, if any, shall be arranged by the supplier. However, the e-way bill will be arranged by CMPDIL if the supplier/Vendor is unregistered one or if provisions of the relevant Act and the rules made there under specifically states that the e-way bill is required to be issued by recipient of goods.)

TDS: The TDS, if applicable, shall be made at applicable rate from the payment made or credited to the supplier.

9. Bid Submission:

All bids are to be submitted on-line on the website <https://coalindiatenders.nic.in>. No bid shall be accepted off-line unless otherwise specified.

10. System Requirement:

It is the bidder's responsibility to comply with the system requirement i.e. hardware, software and internet connectivity at bidder's premises to access the e-tender website. Under any circumstances, CIL/ Subsidiary shall not be liable to the bidders for any direct/indirect loss or damages incurred by them arising out of incorrect use of the e-tender system or internet connectivity failures.

11. Opening of Technical Bid:

Tender will be decrypted and opened online by the “Bid Openers” with their Digital Signature Certificates on/after the prescheduled date & time of Tender Opening.

- 12.1** The Technical bid (Cover-I) will be opened one day after the Bid submission end date or next working day whichever is later. Technical bid (Cover-I) will be decrypted and opened online by the “Bid Openers” with their Digital Signature Certificates after the prescheduled date & time of Tender Opening.
- 12.2** The e-Procurement System will evaluate the Technical bids automatically on the basis of relevant data provided by bidder through a form in an objective and structured manner while submitting bid. If the parameter given by bidder in objective and structured manner does not confirm to required eligibility criteria as specified in the tender document then the bid will be auto rejected.
- 12.3** All the documents uploaded by bidder(s) including i.e. Letter of Bid and the Evaluation sheets generated by the system online shall be downloaded after opening of Technical bid (Cover-I). After decryption and opening of Technical bid (Cover-I) the “technical bid opening summary” will be uploaded on the same day.

12. Tender Evaluation:

- A.** After opening of Technical bid, the documents submitted by bidder(s) in cover I as enlisted in the NIT will be downloaded by the Evaluator and shall be put up to the Tender Committee. The Tender Committee will examine the uploaded documents against information/declarations furnished by the bidder(s) online. If it confirms to all of the information/ declarations furnished by the bidder online and does not change the eligibility status of the bidder then the bidder will be considered eligible for opening of price bid.
- B.** In case the Tender Committee finds that there is some deficiency in uploaded documents corresponding to the information furnished online or in case corresponding document have not been uploaded by bidder(s) then the same will be specified online by Evaluator clearly indicating the omissions/shortcomings in the uploaded documents and indicating start date and end date allowing 7 days (7 x 24 hours) time for online re-submission by bidder(s). The bidder(s) will get this information on their personalized dashboard under “Upload confirmatory document” link. Additionally, information shall also be sent by system generated email and SMS, but it will be the bidder’s responsibility to check the updated status/information on their personalized dash board regularly after opening of bid. No separate communication will be required in this regard. Non-receipt of e-mail and SMS will not be accepted as a reason of non-submission of documents within prescribed time. The bidder(s) will upload the scanned copy of all those specified documents in support of the information/ declarations furnished by them online within the specified period of 7 days. No further clarification shall be sought from Bidder.
- C.** It is responsibility of Bidders to upload legible/clearly readable scanned copy of all the required documents as mentioned above.
- D.** The tender will be evaluated on the basis of documents uploaded by bidder(s) online. The bidder(s) is/are not required to submit hard copy of any document through offline mode. Any document submitted offline will not be given any cognizance in the evaluation of tender.
- E.** In case the bidder(s) submit(s) requisite documents online as per NIT, then the bidder(s) will be considered eligible for opening of Price Bid.
- F.** Seeking clarification shall be restricted to confirmation of submitted document/online information only and it should be only for one time for a period of upto 7 days. The clarification shall be taken in online mode in the e- Procurement portal of CIL only.
- G.** In case bidder(s) fails to confirm the online submitted information(s)/ declaration(s) by the submitted documents as (B) above, their/his bid shall be rejected; however, if the confirmatory documents do not change eligibility status of the bidder in connection his submitted online information(s)/declaration(s), then his/their bid will be accepted for opening of Price Bid.
- H.** After Technical evaluation of tender, “Technical Evaluation Summary” will be uploaded by the evaluator and price bid shall be opened on/after preschedule dateand time mentioned in the NIT online in the e- Procurement portal of CIL. However, in case there is any extension of date and time of price bid opening, it shall be notified online and price bid shall be opened online on e-Procurement portal of CIL after rescheduled date and time.
- I.** In case none of the bidder(s) complies the technical eligibility criteria as per NIT, then bidder(s) will be rejected online and re-tender (if required) will be done (with the same or different quantity, as per the instant requirement).
- J.** **If L1 bidder backs out (i.e. Techno commercially established L1 bidder), the bidder will be banned for (01) one year from being eligible to submit Bids in CIL and its subsidiaries from date**

of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal the EMD will be forfeited and the bidder will be debarred for minimum one (1) year from participating in tenders in CIL/Subsidiary.

Note: In case *If the defaulter L1 bidder is a Joint Venture (JV) firm, penal action against the JV will also be applicable to all the partners of JV.*

K. Preference to Make in India (as applicable) vide Order No. P-45021/2/2017-PP (BE-II) dated 16.09.2020, issued by Govt. of India as amended from time to time shall be applicable. (NOT APPLICABLE WHERE ESTIMATED COST PUT TO TENDER IS LESS THAN 5 LAKHS.)

In terms with the above said policy, Class-I local suppliers and Class-II local suppliers shall be eligible to bid. Non-local supplier is not eligible to bid. The purchase preference shall be given to Class-I local supplier only.

In terms of the above said policy, purchase preference shall be given to Class-I local suppliers in the following manner :

- I.** In the procurement of works which are divisible in nature, the following procedure shall be followed :-
 - i) Among all qualified bids, the lowest bid will be termed as L-1. If L-1 is from a Class-I local supplier, the contract for full quantity will be awarded to L-1 at L-1 price by the Purchaser.
 - ii) If L-1 is not a Class-I local supplier, 50% of the order quantity shall be awarded to L-1. Thereafter, the lowest bidder among the Class-I local suppliers will be invited to match the L-1 price for the remaining 50% quantity subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract for that quantity shall be awarded to such local supplier subject to his matching the L-1 price. In case such lowest eligible Class-I supplier fails to match the L-1 price or accept less than the offer quantity, the next higher Class-I local supplier within the margin of purchase preference shall be invited to match the L-1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local supplier, then such balance quantity may also be ordered on L-1 bidder.
- II.** In the procurement of works which are not divisible, and in procurement of services where the bid is evaluated on price alone, the following procedure shall be followed:-
 - i) Among all qualified bids, the lowest bid will be termed as L-1. If L-1 is from a Class-I local supplier, the contract will be awarded to L-1.
 - ii) If L-1 is not from a Class-I local supplier, the lowest bidder among the Class-I local suppliers, will be invited to match the L-1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such Class-I local supplier subject to matching the L-1 price.
 - iii) In case such lowest eligible Class-I local supplier fails to match the L-1 price, the Class-I local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L-1 price and so on and contract shall be awarded accordingly. In case none of the Class-I local suppliers within the margin of purchase preference matches the L-1 price, then the contract may be awarded to the L-1 bidder.

Note: The confirmation from the bidder regarding matching of L1 price may be taken in confirmatory document link of e-Procurement portal by recycling 'Any other document' link.

Verification of local content :

I. The 'Class-I local supplier' / 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier' / 'Class-II local supplier', as the case may be. They shall also give details of the locations(s) at which the local value addition is made.

II. If the estimated value of procurement is more than Rs. 10 crores, all the Bidders shall submit along with its bid a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered ac-count (in respect of suppliers other than companies) giving the percentage of local con-tent.

III. CIL/ Subsidiary may constitute committees with internal and external experts for independent verification of auditor's / accountant's certificates on random basis and in the case of complaints.

IV. False declarations will attract banning of business of the bidder for a period up to two years and with process in line with clause 19 of GTC.

V. A local supplier who has been debarred by any procuring entity for violation of above order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities.

L. Deleted

13. Auto Extension of Critical Date

In case of Open Tenders, if number of bids received online is found to be less than 03 (three) on end date of bid submission, then the following critical dates of the Tender will be automatically extended only once for a period of 04 (Four) days ending at 17.00 hrs:

- Last date of submission of Bid.
- Last date of receipt of EMD.
- Date of Opening of Tender.

If the extended Date falls on Holiday i.e. a non-working day as defined in the e-Procurement Portal, then the same will be rescheduled to the next working day.

This extension will be also applicable in case of receipt of zero bid.

Notes:

1. The validity period of tender should be decided based on the final end date of submission of bids.
2. The auto extension shall work on the basis of number of bids received only. It may so happen that any of these bids may be eventually rejected during Tender Opening, Technical evaluation or further process of evaluation resulting the total number of valid bids becoming less than 03(three).
3. After two extensions, the tender shall be opened irrespective of available number of bids on the extended date of opening of tender.

14.

14.1 One Bid per Bidder:

Each Bidder shall submit only one Bid, either individually, or as a partner in a partnership firm or a partner in a Joint Venture or a Public Limited / Private Limited Company. A Bidder who submits or participates in more than one Bid (other than as a sub-contractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

15.2 Conflict of Interest.

A Bidder may be considered to have a Conflict of Interest with one or more parties in this bidding process, if:

- a) they have controlling partner(s) in common; or
- b) they receive or have received any direct or indirect subsidy / financial stake from any of them; or
- c) they have the same legal representative / agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) a Bidder or any of its affiliate participated as a consultant in the preparation of the design or technical specification of the contract that is the subject of the bid; or
- f) in case of a holding company having more than one Subsidiary/Sister Concern having common business ownership / management only one of them can bid. Bidders must proactively declare such sister/common business / management in same / similar line of Business;

all such Bidders having a Conflict of Interest, shall be disqualified.

15. Refund of EMD:

- a) If EMD is paid by the bidder in online mode (Direct Debit/NEFT/RTGS) then the EMD of rejected bidders will be refunded at any stage directly to the account from where it had been received (except the cases where EMD is to be forfeited).
- b) No claim from the bidders will be entertained for non-receipt of the refund in any account other than the one from where the money is received.
- c) If the refund of EMD is not received by the bidder in the account from which the EMD has been made due to any technical reason then it will be paid through conventional system of e-payment. For this purpose, if required, Tender Inviting Authority will obtain the Mandate Form from the Bidder.
- d) In case the tender is cancelled then EMD of all the participating bidders will be refunded unless it is forfeited by the department.
- e) If the bidder withdraws his/her bid online (i.e. before the end date of submission of tender) then his/her EMD will be refunded automatically after the opening of tender.
- f) At the option of bidder, the EMD of successful bidder (on Award of Contract) will be retained by CIL/ Subsidiary and will be adjusted to Performance Security Deposit.

16. Site Visit:

- 17.1 The bidder, at the Bidder's own responsibilities, cost and risk, is encouraged to visit and examine the Site of Works and its surrounding, approach road, soil condition, investigation report, existing works, if any, connected to the tendered work, drawings connected to the work, if / as available and obtain all information that may be necessary for preparing the Bid and entering into a contract for execution of the works. The cost of visiting the Site shall be at the Bidder's own expense.
- 17.2 It shall be deemed that the Bidder has visited the Site/Area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether he/she/they actually visits the Site /Area or not and has taken all the factors into account while quoting his/her/their rates.
- 17.3 The Bidder is expected, before quoting his rate, to go through the requirement of materials/workmanship, specification, requirements and conditions of contract.
- 17.4 The Bidder, in preparing the bid, shall rely on the site investigation report referred to in the bid document (if available), supplemented by any information available to the Bidder.

17. Taxes and Duties:

All duties, taxes (excluding Goods and Services Tax (GST) & GST Compensation Cess (if applicable) only) and other levies, royalty, building and construction workers cess (as applicable in States) payable by the bidder/Contractor under the Contract, or for any other cause as applicable on the last date of submission of Bid, shall be included in the rates, prices and the total Bid Price submitted by the Bidder. Applicable GST, if any, either payable by bidder or by company under reverse change mechanism shall be computed by system in BOQ sheet as per predefined logic.

All investments, operating expenses, incidentals, overheads, leads, lifts, carriages, tools and plants etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder.

However, such duties, taxes, levies etc. which is notified after the last date of submission of Bid and/or any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities.

Similarly, if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

The item wise rate quoted by bidder shall be inclusive of all taxes, duties & levies but excluding GST & GST Compensation Cess, if applicable. The payment of GST and GST Compensation Cess by service availer (i.e. CIL/Subsidiary) to bidder/contractor (if GST payable by bidder/contractor) would be made only on the latter submitting a Bill/invoice in accordance with the provision of relevant GST Act and the rules made there under and after online filing of valid return on GST portal. Payment of GST & GST Compensation Cess is responsibility of the service provider/contractor.

Further, any GST credit note required to be issued by the bidder / contractor under the GST provisions should be issued within the time limit prescribed under the GST law.

However, in case bidder/contractor is GST unregistered bidder/dealer or GST registered under composition scheme in compliance with GST rules, the bidder/dealer shall not charge any GST and/or GST Compensation Cess on the bill/invoice. In case of unregistered dealer/bidder, GST, if applicable will be deposited by CIL/Subsidiary directly to concerned authorities in terms with GST provisions.

Input tax credit is to be availed by CIL/Subsidiary as per rule.

If CIL/Subsidiary fails to claim Input Tax Credit(ITC) on eligible Inputs, input services and Capital Goods or the ITC claimed is disallowed due to failure on the part of supplier/vendor of goods and services in incorporating the tax invoice issued to CIL/Subsidiary in its relevant returns under GST, payment of CGST & SGST or IGST, GST (Compensation to State) Cess shown in tax invoice to the tax authorities, issue of proper tax invoice or any other reason whatsoever, the applicable taxes & cess paid based on such Tax invoice shall be recovered from the current bills or any other dues of the supplier/vendor along with interest and penalty, if any.

The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document.

The company reserves the right to deduct/ withhold any amount towards taxes, levies, etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any statutory authority and the company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

In case of collection of minor minerals in area (both virgin and non-virgin), acquired by the Company under the Coal Act, the contractor will have to produce a royalty clearance certificate from the District Authorities before full and final payment.

Further, where any damages or compensation becomes payable by either the Company or the bidder / contractor pursuant to any provision of this Agreement, appropriate GST wherever applicable as per the GST provisions in force shall also apply in addition to such damages or compensation.

Note:

During the execution of the contract if the GST status of the bidder changes, then the payment of GST, if any, to the contractor will be made as per the GST status declared by the bidder during tender stage based on which cost to company has been ascertained or at actuals, whichever is lower.

18. 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 or liable for those costs.

19. Technical Specifications:

The tenderer shall closely study all specifications in detail, which govern the rates for which he is tendering.

20. Currencies of Bid and Payment:

The unit rates and prices shall be quoted by the Bidder entirely in Indian Rupees only.

21. Handing Over of Site:

On completion of the work all rubbish, debris, brick bats etc. shall be removed by the contractor(s) at his/their own expense and the site cleaned and handed over to the company and he/they shall intimate officially of having completed the work as per contract.

22. Deployment of Manpower and Machineries:

The tenderer(s) will deploy sufficient number and size of equipments/machineries/vehicles and the technical/ supervisory personnel required for execution of the work.

23. Change in Constitution of the Contracting Agency:

Prior approval in writing of the company shall be obtained before any change is made in the constitution of the contracting agency, otherwise it will be treated as a breach of Contract.

24. Canvassing in Tender:

Canvassing in connection with the tenders in any shape or form is strictly prohibited and tenders submitted by such tenderers who resort to canvassing shall be liable for rejection.

25. Letter of Acceptance (LOA)/Work Order/Agreement:

The Bidder, whose Bid has been accepted, will be notified /communicated by the Employer electronically online on the e-procurement portal of CIL/ Subsidiary prior to expiration of the Bid validity period. The L-1 bidder will get the information regarding award of work on their personalized dashboard on-line. On receipt of Letter of Acceptance (LOA)/Work Order of the tender issued by the Company, the successful tenderer shall execute contract agreement in the company's prescribed form for the due fulfilment of the contract. Failure to enter into the required contract within the specified period in the work order shall entail cancellation of LOA/work order and forfeiture of the Earnest Money in addition, the bidder will be banned for (01) one year from being eligible to submit Bids in CIL and its subsidiaries from date of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal. In addition, the department may debar the bidder from participating in future bids for at least **12** months as per Guidelines of Banning of Business.

26. Bid Validity:

The validity period of the tenders shall be 120(One Hundred Twenty) days from the end date of bid submission. The validity period of tender shall be decided based on the final end date of submission of bids.

In exceptional circumstances, prior to expiry of the original time limit, the Employer may request the bidders to extend the period of validity for a specified additional period. The employer's request and the bidder's responses shall be made in writing. 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.

The tenderer shall not, during the said period or within the period extended by mutual consent, revoke or cancel his tender or alter the tender or any terms/conditions thereof without consent in writing of the company. In case the tenderer violates to abide by this, the Company will be entitled to take action as per clause No.28 (Modification and Withdrawal of Bid) of NIT.

27. Modification and Withdrawal of Bid:

Modification of the submitted bid shall be allowed on-line only before the deadline of submission of tender and the bidder may modify and resubmit the bid on-line as many times as he may wish. Bidders may withdraw their bids online within the end date of bid submission and their EMD will be refunded. However, if the bidder once withdraws his bid, he will not be able to resubmit the bid in that particular tender. For withdrawal of bid after the end date of bid submission, the bidder will have to make a request in writing to the Tender Inviting Authority. Withdrawal of bid may be allowed till issue of work order/LOA with the following provision of penal action:

- a. If the request of withdrawal is received before online notification for opening of price bid, the EMD will be forfeited and bidder will be debarred for 1 (one) year from participating in tenders in CIL/Subsidiary. the bidder will be banned for (01) one year from being eligible to submit Bids in CIL and its subsidiaries from date of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal. The Price-bid of remaining bidders will be opened and the tender process shall go on.
- b. If the request of withdrawal is received after online notification for opening of price bid, the EMD will be forfeited and the bidder will be debarred for minimum 1 (one) year from participating in tenders in CIL/Subsidiary. the bidder will be banned for (01) one year from being eligible to submit Bids in CIL and its subsidiaries from date of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal. The Price-bid of all eligible bidders including this bidder will be opened and action will follow as under:
 - i. If the bidder withdrawing his bid is other than L 1, the tender process shall go on.
 - ii. If the bidder withdrawing his bid is L-1, then re-tender will be done.

Note :

- i. In case of clause (a) & (b) above, a letter will be issued to the bidder by Tender Inviting Authority with the approval of Tender Accepting Authority (When TAA is CMD then with the approval of concerned Director and in case the TAA is above CMD (i.e. FDs/Empowered Committee/Board) then with the approval of CMD. In case TAA is below CMD, then approval of respective TAA is required), stating that the EMD of bidder is forfeited, and this bidder is debarred for 1 (one) year (in case of clause-a) OR minimum one (1) year (in case of clause-b) from participating in tenders in CIL/Subsidiary the bidder will be banned for (01) one year from being eligible to submit Bids in CIL and its subsidiaries from date of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal. This letter will be circulated to all Areas of the Subsidiary and the updated list will be maintained by all Tender Inviting Authority/Evaluators.

- ii. Penal action against clause (a) & (b) above will be enforced from the date of issue of such order. The standard operating procedure to handle withdrawal of bid after end date of submission shall be as Clause no 14 of Chapter I.

28. Standard Operating Procedure for Withdrawal of Bid:

I. The Mode of withdrawal: -

A. Online Withdrawal of Bids:

- a. The system of online withdrawal is available on the portal up to end date of bid submission, where any bidder can withdraw his/her bid which will attract no penal action from department side.
- b. The system of online withdrawal beyond end date of bid submission and till award of contract is also available but not fully functional and under development stage. Once it is developed and implemented only online withdrawal shall be considered except for some exceptional cases as mentioned in clause below.

B. Offline Withdrawal of Bids :

- a. A partner of bidder (in case of JV and partnership firms) whose DSC is registered on the e-Procurement portal can access the portal for online withdrawal but when there is a split in the business relationship, the partners whose DSC is not registered on the portal do not have the option of online withdrawal of bid. Hence such partners may opt to use offline method of withdrawal of his/her offer (or express his disassociation from the bidder organization).
- b. Till a fully functional system of online withdrawal of bid (beyond end date of bid submission and till award of contract) is not developed and implemented, offline withdrawal shall also be considered.

II. Acceptance of withdrawal by Tender Committee:

- A. Every case of withdrawal under Clause I-(A) (b) and Clause I-(B) shall be put up to Tender Committee for deliberation and further course of action.
- B. The Tender Committee shall apply its due diligence to decide:
 - a. Whether the request for withdrawal of offer has been received from right source and authentic. For this purpose a letter is to be sent by registered post/speed post to the bidder on the address as given by him in the enrollment page of e-Procurement portal, allowing 10 days' time to confirm the withdrawal. If the bidder does not confirm the withdrawal within the stipulated period then it should be construed that there is no withdrawal of bid. In case the withdrawal/disassociation from the firm (Joint Venture or Partnership firm) has been submitted by any other partner then also the confirmation has to be sought from the bidder and if bidder wants to deny the withdrawal/disassociation from the JV or the partnership firm then the bidder shall be required to furnish a legally acceptable document signed by all the partners of the firm to substantiate his claim.
 - b. Whether the withdrawal is due to the reason other than to support any mala fide intention of any participating bidder such as participating or supporting a cartel formation etc.
 - c. If the mala fide intentions in the withdrawal are apprehended then the tender should be cancelled apart from other penal action as per e-Procurement Manual for works and services of CIL and other guidelines/manuals of CIL.
 - d. If no mala fide intentions in the withdrawal are apprehended then the penal action in line with the prescriptions of the e-Procurement Manual for works and services of CIL will be applicable.
 - e. The Tender Committee may also obtain the opinion of legal department in order to ascertain the legal course of action in case of Clause II-(B)(b) and II-(B)(c) above.

29. Postponement of scheduled date(s):

The Company reserves the right to postpone the date of receipt and opening of tenders or to cancel the tenders without assigning any reason whatsoever.

30. Public Enterprises preference:

The Company reserves its right to allow Public Enterprises purchase preference facility as admissible under prevailing policy.

31. Contract Agreement Document(s):

This Tender Notice shall be deemed to be part of the Contract Agreement. The "General Terms & Conditions", Additional Terms & Conditions, Special Terms & Conditions (if any), Technical Specifications, drawings (if any) and any other document uploaded on portal as NIT document forms an integral part of this NIT and shall also form a part of the contract agreement as per clause 2 of the 'General Terms and Conditions' of 'Conditions of Contract'.

32. Sub-letting of Work:

No subletting of work as a whole by the contractor is permissible. Subletting of work in piece rated jobs is permissible with the prior approval of the department.

The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in - Charge/Designated Officer-in-charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer-in-Charge/Designated Officer-in-Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

33. Prohibition of Child Labour engagement:

The contractor/contractual Agencies must not engage any Child Labour during the course of execution of the contract work within the meaning and scope of the Child Labour Prohibition & Regulation Act-1986 and its relevant Act and Rules amended from time to time by the Govt. of India.

34. Implementation of CMPF/EPF:

The tenderer shall have to ensure implementation of CMPF/EPF, if applicable, in respect of the workers deployed by him as detailed in the tender document.

35. Splitting up of the work:

The Company does not bind itself to accept the lowest tender and reserves the right to reject any or all the tenders without assigning any reasons whatsoever and to split up the work between two or more tenderer(s) or accept the tender in part and not in its entirety.

36. Settlement of Disputes:

Matters relating to any dispute or difference arising out of this tender and subsequent contract Awarded based on this tender, shall be dealt as per Clause No. 16- title- 'Settlement of Disputes' of the 'General Terms and Conditions' of 'Conditions of Contract' of the tender document.

37. Deleted

38. Restrictions on Procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries:

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority (as per details given in Annexure-XV)

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain context) means any person or firm or company, including any member of a Joint venture (that is an association of several persons or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency, branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" means:-

- a. An entity incorporated, established or registered in such a country; or
- b. A subsidiary of an entity incorporated, established or registered in such a country; or
- c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d. An entity whose beneficial owner is situated in such a country; or
- e. An Indian (or other) agent of such an entity; or
- f. A natural person who is a citizen of such a country; or
- g. A joint venture where any member of the joint venture falls under any of the above.

IV. "The beneficial owner" for the purpose of (III) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation

- a. **“Controlling ownership interest” means ownership of, or entitlement to more than Twenty Five Percent of shares or capital or profits of the company;**
 - b. **“Control” shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;**
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals.
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the competent Authority.

Note:

1. **(a) The intending bidders must submit “Certificate” as per the format given at Annexure-XIV in compliance to order no.F.No.6/18/2019-PPD dt 23/7/2020 of Ministry of Finance, Dept of Expenditure, Public Procurement Division with respect to “restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries”**

AND

(b) Valid registration from competent authority (if applicable). Registration should be valid at the time of submission of bid and at the time of acceptance of bids.
2. **Regarding registration with Competent Authority, Annexure-XV may please be referred. Regarding exclusion from restriction, Annexure-XVI may please be referred.**

Tender Inviting Authority

INSTRUCTIONS TO BIDDERS	
1. SCOPE OF BIDDER	
1.1	The Central Mine Planning & Design Institute Limited (referred to as Employer in these documents) invites bids for the works as mentioned in the Bid Notice. The Bidders should submit Bids for all the works mentioned in the Notice.
1.2	The successful Bidder will be expected to complete the Work(s) by the Intended Completion period specified in the Bid document/Notice.
2. ELIGIBLE BIDDERS	
2.1	The Invitation for Bid is open to all Bidders including an individual, proprietorship firm, partnership firm, company registered under Companies Act, or joint ventures. The bidders shall be eligible to participate only if they fulfil the qualifying/eligibility criteria specified in e-Tender Notice and at Clause No.3.
2.2	Joint Venture: Two or three companies/contractors may jointly undertake contract/contracts. Each entity will be jointly and severally responsible for completing the task as per the contract (applicable for bids having estimated cost above Rs.2 Crores).
Joint Venture details :	
Name of all partners of a joint venture (not more than 3):	
<ol style="list-style-type: none"> 1. Lead partner 2. Partner 3. Partner 	
Joint Venture must comply the following requirements:	
<ol style="list-style-type: none"> i) Following are the minimum qualification requirements for Joint Venture: <ol style="list-style-type: none"> a) The qualifying criteria parameter e.g. experience of the individual partners of the J.V will be as deliberated under clause 8(A) of e-tender Notice towards fulfilment of qualification criteria related to experience. b) The qualifying criteria parameter e.g. financial resources (Turnover) of the individual partners of the J.V. will be added together, for the relevant period, and the total criteria should not be less than as deliberated under clause 8(B) of e-tender Notice towards fulfilment of qualification criteria related to financial turnover. ii) The formation of joint venture or change in the Joint Venture character/ partners after submission of the bid and any change in the bidding regarding Joint Venture will not be permitted. iii) The bid, and in case of a successful bid, the agreement, shall be signed so as to legally bind all partners jointly and severally and any bid shall be submitted with a copy of the Joint Venture Agreement providing the joint and several liabilities with respect to the contract. iv) The pre-qualification of a Joint Venture does not necessarily pre-qualify any of its partners individually or as a partner in any other Joint Venture or association. In case of dissolution of a Joint Venture, each one of the constituent firms may pre-qualify if they meet all the pre-qualification requirements, subject to written approval of the employer. v) The bid submission must include documentary evidence to the relationship between Joint Venture partners in the form of JV Agreement to legally bind all partners jointly and severally for the proposed agreement which should set out the principles for the 	

INSTRUCTIONS TO BIDDERS

constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total) and liabilities (joint and several) in respect of each and all of the firms in the Joint Venture. Such JV Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.

- vi) One of the partners shall be nominated for being in charge of the contract and shall be designated as Lead Partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the partners.
 - vii) The JV Agreement must provide that the Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture and the entire execution of the contract shall be done with active participation of the Lead Partner.
 - viii) The contract agreement should be signed by each Joint Venture Partners. Subsequent declarations/ letters/ documents shall be signed by lead partner authorised to sign on behalf of joint venture or authorised signatory on behalf of JV.
 - ix) The bid should be digitally signed by a person authorized by all the partners of the Joint Venture.
 - x) An entity can be a partner in only one Joint Venture. Bid submitted by Joint Venture including the same entity as partner will be rejected.
 - xi) The JV agreement may specify the share of each individual partner for the purpose of execution of this contract. This is required to fulfil eligibility and also for the purpose of apportioning the value of the contract to that extent to individual partner for subsequent submission in other bids if he intends to do so for the purpose of the qualification in that Bid.
 - xii) The earnest money / bids security bank guarantee can be submitted by the Joint Venture / one or more partners of the joint venture.
 - xiii) The JV agreement must specifically state that it is valid for the project for which bidding is done. If JV breaks up mid-way before award of work and during bid validity period bid will be rejected.
If JV breaks up midway before award of work and during bid validity/after award of work/during pendency of contract, in addition to normal penalties as per provision of bid document, all the partners of the JV shall be debarred from participating in future bids for a minimum period of 12 months.
 - xiv) JV agreement shall be registered in accordance with law so as to be legally valid and binding on the members before making any payment.
- Note: If the work is awarded to Joint Venture firm, they will register the JV agreement in accordance with Registration Act.**
- xv) JV shall open a Bank Account in the name of JV and all payments due to the JV shall be credited by employer to that account only. To facilitate statutory deductions all statutory documents like PAN/GSTIN, etc. in the name of the Joint Venture shall be submitted by JV before making any payment.

2.3 The bidders shall have Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root certificate of CCA.

2.4 The bidders have to accept unconditionally the online user portal agreement which contains the acceptance of all the Terms and Conditions of Notice Inviting Tender (NIT) and Instructions to Bidders (ITB), including General and Additional Terms & Conditions, technical specifications, other conditions, if any, along with on-line undertaking in support of the authenticity of the

INSTRUCTIONS TO BIDDERS

declarations regarding the facts, figures, information and documents furnished by the bidder on-line in order to become an eligible bidder.

2.5 The Company reserves its right to allow Public Enterprises purchase preference facility as admissible under prevailing policy.

2.6 No sub-letting of the work as a whole by the contractor is permissible. Prior permission is required to be taken from the principle employer for engagement of sub-contractors in part work/piece rated work.

The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in-Charge/Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer-in-Charge / Designated Officer in Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

3. QUALIFICATION OF THE BIDDER

3.1 In the event that pre-qualification of potential bidders has been undertaken, only bids from pre-qualified bidders will be considered for award of contract.

3.2 If the employer has not undertaken pre-qualification of potential bidders, all bidders shall fulfil the eligibility / qualifying criteria as detailed at Cl. No.8 & 9 of e-Tender Notice. Such details shall be submitted as deliberated at e-Tender Notice.

3.3 If the bidder is subsidiary of a company, the experience and resources of the holding company or its other subsidiaries will not be taken into account. However, if the bidder is a holding company, the experience and resources of its wholly owned subsidiaries will be taken into consideration.

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

- a. Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements.

Notes:

The documents to be furnished by the bidder to prove that he is satisfying the qualification criteria laid down should all be in the bidder's name except in cases where though the name has changed, owners continued to remain the same and in cases of amalgamation of entities and when a holding company relies on credential of its wholly owned subsidiary.

4. COST OF BIDDING

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

5. CONTENT OF BIDDING DOCUMENTS

5.1 The set of bidding documents comprises the documents listed in the table below as issued online by the Employer and addendum/corrigendum issued in accordance with relevant provision.

- a. Notice Inviting Tender
- b. Instructions to Bidders;
- c. Conditions of Contract;
- d. Scope of work/Bill of Quantities;
- e. Forms of Securities and form of Article of Agreement.

INSTRUCTIONS TO BIDDERS

- f. Pre contract Integrity Pact (if applicable)
- g. User portal Agreement
- h. Guidelines of Banning of Business
- i. Other document, if required.

6. CLARIFICATION OF BIDDING DOCUMENTS

- 6.1** A prospective bidder requiring any interpretation or clarification of bidding document may seek clarification online or during pre-bid meeting (if any). The clarifications may be asked from the next day of e-Publication of NIT. The last date for seeking clarification will be as specified online. The department will clarify as far as possible only relevant queries. The clarifications given by department will be visible to all the bidders intending to participate in bid.

7. AMENDMENT OF BIDDING DOCUMENTS (BE DELETED FOR NORMAL WORKS, APPLICABLE FOR SPECIALISED WORK)

- 7.1** Before the deadline for submission of Bids, the Employer may modify the bidding documents by issuing addenda.
- 7.2** Any addendum thus issued shall be a part of the bidding document and shall be displayed in the website. The bidder shall upload the same during bid submission.
- 7.3** To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend, as necessary, the deadline for submission of Bids, in accordance with Sub-clause 11.2 below.
- 7.4** Bidders are requested to look into website for any addendum as specified in the NIT.

8. LANGUAGE OF BID

- 8.1** All documents relating to the Bid shall be in the English language.

9. BID PRICES

- 9.1** The bidder shall closely study specification in detail and scope of work which govern the rates for which he is quoting. The Bidders shall offer for the whole Works as described in Sub-Clause 1.1, based on the Bill of Quantities. Based on priced bill of quantities submitted by the Bidder, the Employer reserves the right to allot whole or part of the work at their discretion and no claims, whatsoever, shall be entertained in this regard.
- 9.2** The price bid containing the bill of quantity will be excel format and will be downloaded by the bidder and he will quote the rates for all items/heads/sub-heads on this excel file as detailed at clause No.9(d) of e-Tender Notice.
- 9.3** All duties, taxes (excluding Goods and Services Tax (GST) & GST Compensation Cess (if applicable) only) and other levies, royalty, building and construction workers cess (as applicable in States) payable by the bidder/Contractor under the Contract, or for any other cause as applicable on the last date of submission of Bid, shall be included in the rates, prices and the total Bid Price submitted by the Bidder. Applicable GST, if any, either payable by bidder or by company under reverse charge mechanism shall be computed by system in BOQ sheet as per predefined logic.

All investments, operating expenses, incidentals, overheads, leads, lifts, carriages, tools and plants etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder.

However, such duties, taxes, levies etc. which is notified after the last date of submission of Bid and/or any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities.

INSTRUCTIONS TO BIDDERS

Similarly, if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

The item wise rate quoted by bidder shall be inclusive of all taxes, duties & levies but excluding GST & GST Compensation Cess, if applicable. The payment of GST and GST Compensation Cess by service availer (i.e. CIL/Subsidiary) to bidder/contractor (if GST payable by bidder/contractor) would be made only on the latter submitting a Bill/invoice in accordance with the provision of relevant GST Act and the rules made there under and after online filing of valid return on GST portal. Payment of GST & GST Compensation Cess is responsibility of the service provider/contractor.

Further, any GST credit note required to be issued by the bidder / contractor under the GST provisions should be issued within the time limit prescribed under the GST law.

However, in case bidder/contractor is GST unregistered bidder/dealer or GST registered under composition scheme in compliance with GST rules, the bidder/dealer shall not charge any GST and/or GST Compensation Cess on the bill/invoice. In case of unregistered dealer/bidder, GST, if applicable will be deposited by CIL/Subsidiary directly to concerned authorities in terms with GST provisions.

Input tax credit is to be availed by CIL/Subsidiary as per rule.

If CIL/Subsidiary fails to claim Input Tax Credit(ITC) on eligible Inputs, input services and Capital Goods or the ITC claimed is disallowed due to failure on the part of supplier/vendor of goods and services in incorporating the tax invoice issued to CIL/Subsidiary in its relevant returns under GST, payment of CGST & SGST or IGST, GST (Compensation to State) Cess shown in tax invoice to the tax authorities, issue of proper tax invoice or any other reason whatsoever, the applicable taxes & cess paid based on such Tax invoice shall be recovered from the current bills or any other dues of the supplier/vendor along with interest and penalty, if any.

Note:

During the execution of the contract if the GST status of the bidder changes, then the payment of GST, if any, to the contractor will be made as per the GST status declared by the bidder during tender stage based on which cost to company has been ascertained or at actuals, whichever is lower.

- 9.4** The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document.

10. BID SECURITY/EARNEST MONEY DEPOSIT

- 10.1** The bidder shall furnish, as part of his bid, a ~~Bid Securing declaration/Earnest Money of the amount~~ as shown in e-tender Notice and in the form as deliberated at Clause 3 of e-tender Notice.

- 10.2** Any Bid not accompanied by an acceptable ~~Bid Securing declaration~~ ~~Bid Security/EMD~~ shall be summarily rejected by the employer as non-responsive.

The bid security/EMD, of successful bidder may be retained and adjusted with performance security/security deposit, at bidder's option.

- 10.3** The Bid Security/Earnest Money may be forfeited. The defaulting contractor will be banned for 01(one) year from being eligible to submit Bids in CIL and its subsidiaries from the date of issue of such letter if:

- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity/extended validity with mutual consent;

OR

INSTRUCTIONS TO BIDDERS

- (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/ Security Deposit.

Additionally, the company shall ban such defaulting contractor from participating in future tenders in concerned Subsidiary/CIL HQ for a period of minimum one year from the date of issue of such letter.

In case of JV/Partnership firm, the banning shall also be applicable to all individual partners of JV/Partnership firm.

- 10.4** The Bid Security/ EMD deposited with the Employer will not carry any interest.
- 10.5** No claim from the bidders will be entertained for non-receipt of the refund in any account other than the one from where the money is received.
- 10.6** If the refund of EMD is not received by the bidder in the account from which the EMD has been made due to any technical reason, then it will be paid through conventional system of e-payment. For this purpose, bidder should submit E-Mandate form in format provided by company.
- 10.7** In case the tender is cancelled then EMD of all the participating bidders will be refunded unless it is forfeited by the department.
- 10.8** If the bidder withdraws his/her bid online (i.e. before the end date of submission of tender) then his/her EMD will be refunded automatically after the opening of tender.

11. DEADLINE FOR SUBMISSION OF BIDS

- 11.1** Bids shall be submitted online on the web site <https://coalindiatenders.nic.in> within the date and time specified in the e-Tender Notice.
- 11.2** The employer may extend the deadline for submission of bids in accordance with provisions of e-Tender Notice/ITB, 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.

12. SIGNING AND SUBMISSION OF BID

- 12.1** The Letter of bid will be digitally signed by DSC holder submitting bid online and it does not require any physical signature. However, if the Letter of Bid bears the physical signature in addition to the digital signature of DSC holder, it will be accepted without questioning the identity of person signing the bid.
- 12.2** Submission of bid shall be as detailed at Clause No.9 of e-Tender Notice.

13. Tender Status:

It will be the bidder's responsibility to check the status of their Bid online regularly, after the opening of bid till award of contract. Additionally, information shall also be sent by system generated e-mail and SMS at nodal points (Date of bid opening, Requisition for Clarification on Confirmatory document from L-1 bidder, award of work etc.). No separate communication will be required in this regard. Non-receipt of e-mail and SMS will not be accepted as a reason of non-submission of Confirmatory documents within prescribed time. This will be specifically mentioned in the NIT. The Tender Status will be in public domain and anyone visiting the site can view it by identifying the tender.

14. EVALUATION AND COMPARISON OF BIDS.

- 14.1** Evaluation and comparison of Bids will be done by System online. This online evaluation will be validated by Mahanadi Coalfields Limited at each stage as deliberated in e-Tender Notice. The bidder shall also comply with system requirement as deliberated in e-Tender Notice. Bid evaluation shall be done after taking into consideration overall quoted price by the bidder and effect of Goods and Service tax (GST), GST Compensation Cess etc. as applicable. L-1 will be decided based on Cost to the Company.

INSTRUCTIONS TO BIDDERS	
14.2	If the Bid of the successful Bidder is seriously unbalanced in relation to the Company's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the methods and schedule proposed.
<p>In case of Abnormally Low Bids the company may seek written clarifications from the bidder, including detailed price analysis of the bid price in relation to scope, schedule, allocation of risks and responsibilities, and any other requirements of the bid documents.</p> <p>Justified price shall be finalized by the owner on the basis of prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/ NBO, and shall be binding on the bidder.</p> <p>If, after evaluation the price analysis, the company determines that the bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the company may ask to deposit additional performance security deposit .</p> <p>In case of Additional performance security shall be applicable, if the bid price is below 15% of the justified price, finalized by the owner. The amount of such additional performance security shall be the difference between 85% of the owner's justified price and quoted price.</p> <p>Justified price shall be finalized by the owner on the basis of prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/ NBO, and shall be binding on the bidder.</p> <p>Additional performance security shall be furnished by bidder along with normal performance security.</p> <p>Failure to submit such additional performance security may result into termination of the contract and forfeiture of EMD and one year of banning of business from participating in CIL's and its subsidiary.</p> <p>This additional performance security will not carry any interest and shall be released in the following manner:</p> <ul style="list-style-type: none"> i) 30% of Additional performance security will be released after 60% of the total work is completed. ii) 50% of Additional performance security will be released after 80% of the total work is completed. iii) 100% of Additional performance security will be released after total work is completed. <p>Additional performance security may be furnished in the shape of BG or any of the forms as applicable for performance security</p>	
15.	Deleted
16.	AWARD CRITERIA
16.1	Subject to Clause No.17, 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 acceptable Bid Price, provided that such Bidder has been determined to be: <ul style="list-style-type: none"> a) Eligible in accordance with the provisions of Clause 2; and b) Qualified in accordance with the provisions of Clause 3.
17.	EMPLOYER'S RIGHT TO ACCEPT ANY BID, NEGOTIATE AND TO REJECT ANY OR ALL BIDS

INSTRUCTIONS TO BIDDERS	
17.1	Notwithstanding Clause No.16, the Employer reserves the right to accept, negotiate 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.
18.	NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT
18.1	The Bidder, whose Bid has been accepted, will be notified /communicated by the Employer electronically online on the e-procurement portal of CIL prior to expiration of the Bid validity period. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called "the Contract Price"). The offline communication of LOA shall not be mandatory.
18.2	The notification of award (LOA/Work Order) will constitute the formation of the Contract. The works should be completed as per period specified in the NIT from the Date of Commencement as defined in Clause 6.0 of General Terms and Condition.
18.3	The Agreement will incorporate all agreements between the Employer and the successful Bidder, work programme etc. within 30 (thirty) days following the notification of award along with the letter of Acceptance and/or Work Order issued by department. In case of failure to enter in to agreement within specified period or extended period on the written request of the bidder, if any, the bidder will be banned for 01 (one) year from being eligible to submit Bids in CIL and its subsidiaries from date of issue of such letter. This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e-Procurement portal—the department will take action as prescribed in Guidelines for Banning of Business along with forfeiture of Earnest Money. The bidder will also be banned from participating in re-tender. No payment for the work shall be made before execution of this agreement. In case of JV/Partnership firm, the banning shall also be applicable to all individual partners of JV/Partnership firm.
18.4	In the bidding process, the cause of rejection of Bid of any bidder shall be intimated to non-qualified bidder after the award of the work to the successful one and the Security/ Earnest Money shall be refunded to unsuccessful bidders as per provision of e-Tender Notice.
18.5	The contractor shall enter into and execute contract agreement in the prescribed form on non-judicial stamp paper in accordance with the relevant law of the State/Union of India. The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract document/agreements shall be prepared and signed by both the parties. One of the sets shall be stamped "Original" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the original is to be retained by the company. For additional copy, cost to be charged. All additional copies should be certified by the Engineer-in-Charge. The contractor shall keep copy of these documents on the site/place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer-in-charge, his representatives or any other officials authorized by the company for the purpose. The contract document shall not be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents. Until the formal agreement is signed between the Owner and Contractor, LOA/Work Order together with Contract Document, shall constitute the Contract.
19.	PERFORMANCE SECURITY/SECURITY DEPOSIT
19.1	Security Deposit shall consist of two parts:

INSTRUCTIONS TO BIDDERS

- a) Performance Security to be submitted at award of work and
- b) Retention Money to be recovered from running bills.

The security deposit shall bear no interest.

For details refer Clause No.4 of Conditions of Contract (General Terms and Conditions)

20. EMPLOYMENT OF LABOUR

- 20.1** Contractors are to employ, to the extent possible (as per policy decision of the company valid from time to time), local project affected people and pay wages not less than the minimum wages as per minimum Wages Act or such other legislations or award of the minimum wage fixed by respective State Govt. or Central Govt. as may be in force.

Payment of Provident Fund for the workmen employed by him for the work as per the Law prevailing under provision of CMPF/EPF and allied scheme valid from time to time shall be responsibility of the contractor.

The contractor needs to ensure that the employee has become a member of any of the provident fund as the case may be and the unique membership number of the CMPF/EPF or Allied Scheme needs to be submitted to Employer.

In addition to the above, the Contractor shall provide a copy of the updated passbook having entry made in the CMPF/EPF or Allied Scheme(s) of Provident fund as the case may be by the competent authority annually /as and when asked. Bidder shall also submit copies of statutory returns.

- 20.2** The bidder shall also comply with statutory requirements of various acts including CL(R&A) Act.

- 20.3** The contractor's workmen shall be paid through Bank.

- 20.4** The contractors shall register themselves on the Contract Labour Payment Management Portal (CLPMP) of CIL within 30 days of issue of work order and will have to enter and update periodically the following details in the portal:

- a. Work Order details
- b. Details of Contractor workers and payment of wages in respect of each Work Order each month.

- 20.5** All the contract workers shall be covered with the Bio-metric attendance system for payment of wages.

- 20.6** The bidder shall comply with statutory requirements of various acts including Child Labour (Prohibition & Regulation) Act, 1986 as amended from time to time and all rules, regulations and schemes framed thereunder from time to time in addition to other applicable labour laws.

- 20.7** The bidder shall also follow other guidelines as incorporated at Clause 13 of GTC covered under additional responsibilities of the contractor.

NOTE: In case company decides/ circulates separate wages for underground works / for works within mine premises, the same may be allowed based on appropriate circular. Clause 13(xiv) of GTC shall stand amended to this extent before notification of bid.

21. LEGAL JURISDICTION

Matter relating to any dispute or difference arising out of this bid and subsequent contract awarded based on the bid shall be subject to the jurisdiction of local court only where the subject work is to be executed.

22. e-PAYMENT

- 22.1** Successful bidder will be required to submit a Mandate Form duly signed by bidder and the Bank Officials for e-Payment.

INSTRUCTIONS TO BIDDERS

23. MISCELLANEOUS

23.1 The bidders should fill the bid document properly and carefully. They should avoid quoting absurd rates.
--

23.2 Throughout the bidding documents, the terms 'bid' and 'tender' and their derivatives are synonymous.
--

24.

SECTION 3

STANDARD FORMATS / ANNEXURES

eTender Portal User Agreement

In order to create a user account and use the eTender portal you must read and accept this eTender portal User Agreement.

A. UNDERTAKINGS TO BE FURNISHED ONLINE BY THE BIDDER

I DO HEREBY UNDERTAKE

1. That all the information being submitted by me/us is genuine, authentic, true and valid on the date of submission of tender and if any information is found to be false at any stage of tendering or contract period, I/We will be liable to the following penal actions apart from other penal actions prescribed elsewhere in the tender document.
 - a. Cancellation of my/our bid/contract (as the case may be)
 - b. Forfeiture of EMD
 - c. Punitive action as per tender document
2. That I/we accept all terms and condition of NIT, including General Terms and Condition and Special/Additional Terms and Condition as stated there in the tender document as available on the website.
3. That I/we accept the Integrity Pact as given in the tender document (if applicable).
4. That I/we, am/are giving my/our consent for e-payment and submitting/ shall submit the mandate form for e-Payment in the format as prescribed in the document in case, the work is awarded to us.
5. That I/we do authorize CIL/Subsidiary for seeking information/clarification from my Bankers having reference in this bid.
6. That I/we will upload original/certified photo/scanned of all the relevant documents as prescribed in the tender document in support of the information and data furnished by me/us online.
7. I/We confirm that I/We have not been banned or de-listed by any Govt. or Quasi Govt. agencies or PSUs. In case We are banned or delisted this information shall be specifically informed to the tender issuing authority.
8. That I/We accept all the undertakings as specified elsewhere in the tender document.
9. That this online agreement will be a part of my bid and if the work is awarded to me/us, this will be a part of our agreement with CIL/Subsidiary Company.

B. TERMS AND CONDITIONS OF E-TENDER SERVICES AGREEMENT

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YOU MAY NOT MODIFY, COPY, REPRODUCE, REPUBLISH, UPLOAD, POST, TRANSMIT, OR DISTRIBUTE, IN ANY MANNER, THE MATERIAL ON THE SITE, INCLUDING TEXT, GRAPHICS, CODE AND/OR SOFTWARE.

You may print and download portions of material from the different areas of the website solely for your own non-commercial use provided that you agree that you shall not change or delete any copyright or proprietary materials from the site.

www.coalindiatenders.nic.in is an e-procurement portal of Coal India Limited/its Subsidiary.

**THIS E-TENDER PORTAL AND RELATED SERVICES SUBJECT TO YOUR
COMPLIANCE WITH THE USER'S TERMS AND CONDITIONS SET FORTH BELOW:**

PLEASE READ THE FOLLOWING INFORMATION CAREFULLY. YOU MAY NOT COMPLETE YOUR REGISTRATION AND USE THE E-TENDER PORTAL WITHOUT AGREEING TO COMPLY WITH ALL OF THE TERMS AND CONDITIONS SET FORTH BELOW.

BY REGISTERING THE USER NAME AND PASSWORD, YOU AGREE TO ABIDE BY ALL THE TERMS AND CONDITIONS SET FORTH BELOW:

Bidder Registration, Password and Security:

Upon successful completion of Registration online, User ID and Password will be registered. You can login, only by giving valid User ID and Password and then signing with your valid Digital Signature Certificate.

The Online registration/enrolment of bidder on the portal should be done in the name of the bidder. The person whose DSC is attached to the Registered Bidder should be either the bidder himself Or, duly authorized by the Bidder.

User ID and password are strictly personal to each Authorised User and non-transferable. The User shall ensure that its Authorised Users do not divulge or disclose their user ID or password to third parties. In the event that the Authorised User comes to know that the User ID/Password has been/ might have been divulged, disclosed or discovered by any third party, user or its authorized user shall immediately modify the password using "Change Password" option. CIL/subsidiary will have no responsibility or obligation in this regard.

At the time of enrolment in the e-Tendering portal of CIL/its Subsidiaries, the Bidders should ensure that the status of DSC is active on this site. The activation of newly issued DSC may take 24 hrs or more. Hence Bidders who are obtaining new DSC should register at least 24 hrs before the submission of Bid.

By registering in this portal, you forthwith assume the responsibility for maintaining the confidentiality of the Password and account, and for all activities that occur under your Password or Account. You also agree to (a). immediately notify by e-mail to Application Administrator/Nodal officer, of any unauthorized use of your Password or Account or any other breach of security, and (b) ensure that you log-out from your account at the end of each session. CIL/its Subsidiaries shall not be liable for any loss or damage caused to you due to your failure to comply with the foregoing.

Registered user can modify or update some of the information in their profile as and when required at their own discretion. However, some information such as "User ID" are protected against changes by Bidder after enrolment and some other information such as "Bidder Name" etc. are protected against changes by Bidder after bid submission.

Modification of software:

With consent of Project Advisory Committee, e-procurement of CIL, the Administrator of e-Tender portal, reserves the right to modify, add, delete and/or change the contents, classification and presentation of the information on the market place at any time as it may in its absolute discretion find to be expedient and without giving any notice. It is the users responsibility to refer to the terms and/or any change or addition to the same while accessing the site.

Coal India Limited reserves right to interrupt/suspend the availability of the e-Tender system without any notice to the users.

System Requirements:

It is the user's responsibility to comply with the system requirements: hardware, software, Internet connectivity at user premises to access the eTender portal as mentioned in the home page in the link "Resources Required".

Under any circumstances, CIL shall not be liable to the Users for any direct/indirect loss incurred by them or damages caused to them arising out of the following:

- (a). Incorrect use of the e-Tender System, or;
- (b). Internet Connectivity failures in respect of the equipment used by the Users or by the InternetService Providers, or;
- (c). Inability of the Bidder to submit their bid due to any DSC related problems, hardware, software or any other factor which are personal/ special/local to the Bidder.

Contents of Tender Information:

Tenders shall be published by the authorized Tender Inviting Authorities of the respective Tendering entities of CIL/subsidiary. In case of any clarifications arising out of the tenders, the users have to contact the respective Tender Inviting Authority.

Bid Submission Acknowledgement:

The User should complete all the processes and steps required for Bid submission. The successful Bid submission can be ascertained once acknowledgement is given by the system through Bid Submission number i.e. Bid ID, after completion of all the processes and steps. Coal India Limited is not responsible for incomplete bid submission by users. Users may also note that the incomplete bids will not be saved by the system and so the same will not be available to the Tender Inviting Authority for processing.

The acknowledgement is the only confirmation of submission of bid, which the bidder can show as a proof of participating in the tender. Other than this acknowledgement, no proof will be considered as a confirmation to the submission of a bid. If the bidder fails to produce this acknowledgement required for verification in case of dispute, his claim for submission of bid may not be considered.

Upload files:

The bidders have to ensure that the files being uploaded by them are free from all kinds of viruses and contain only the relevant information as stated by the Tender Inviting Authorities for the particular tender. It is not obligatory on the part of CIL/subsidiary to read each and every document uploaded by the Bidder. If any bidder/Company has uploaded/attached irrelevant data, bogus or fabricated certificates towards his qualification requirements to the respective tender then their User account will be liable for termination permanently or temporarily by CIL/subsidiary without any prior notice.

User Conduct:

You agree that all information, data, text, software, photographs, graphics, messages or other materials ("Content"), whether publicly posted or privately transmitted, are the sole responsibility of the person from which such Content is originated. This means that you are entirely responsible for all Content that you upload, post, email or otherwise transmit via the eTender portal.

CIL/subsidiary does not control the Content posted via the e-Tender portal and, as such, does not guarantee the accuracy, integrity or quality of such Content. Hence under no circumstances, CIL/subsidiary is liable in any manner for any Content, including, but not limited to, for any errors or omissions in any Content, or for any loss or damage of any kind incurred as a result of the use of any Content posted, e-mailed or otherwise transmitted via the Site.

Amendments to a tender published:

You agree that the CIL/ Subsidiary companies reserves the right to re-tender /cancel a tender or extend the closing date or amend the details of tender at any time by publishing corrigendum as applicable.

Special Admonitions for International Use:

Recognizing the global nature of the Internet, you agree to comply with all local rules regarding online content and acceptable Content. Specifically, you agree to comply with all applicable laws regarding the transmission of technical data to and from India or the country in which you reside.

Links:

The Site may provide, links to other World Wide Web sites or resources. Because CIL/subsidiary has no control over such sites and resources, you acknowledge and agree that the CIL/Subsidiary is not responsible for the availability of such external sites or resources, and does not endorse and is not responsible or liable for any Content, advertising, products, or other materials on or available from such sites or resources. You further acknowledge and agree that the CIL/subsidiary shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such Content, Goods or Services available on or through any such site or resources.

Miscellaneous:

This Agreement shall all be governed and construed in accordance with the laws of India & applicable to agreements made and to be performed in India. The e-Tender portal's failure to insist upon or enforce strict performance of any provision of this Agreement shall not be construed as a waiver of any provision or right. Neither the course of conduct between the parties nor trade practice shall act to modify any provision of this Agreement. CIL/subsidiary may assign its rights and duties under this Agreement to any party at any time without notice to you. Any rights not expressly granted herein are reserved.

Governing Law:

Terms shall be governed by, and construed in accordance with, Indian law. The parties agree that the principal civil court of the place where the registered office of Coal India/Subsidiary Company is situated shall have non-exclusive jurisdiction to entertain any dispute with Coal India/Subsidiary company. In case of dispute being with a regional Institute of CMPDIL, the principal Civil Court where the said regional Institute is situated shall be place of suing.

CIL/subsidiary reserves the right to initiate any legal action against those bidders violating all or any of the above-mentioned terms & conditions of e-Tender services agreement.

Modification of terms of Agreement:

CIL/its Subsidiaries reserves the right to add to or change/modify the terms of this Agreement. Changes could be made by us after the first posting to the Site and you will be deemed to have accepted any change if you continue to access the Site after that time. CIL/its Subsidiaries reserves the right to modify, suspend/cancel, or discontinue any or all services/ make modifications and alterations in any or all of the content, at any time without prior notice.

Policy and Security:

General Policy:

CIL/its Subsidiaries is committed to protecting the privacy of our e-Tender site visitors. CIL/subsidiary does not collect any personal or business information unless you provide it to us voluntarily when conducting an online enrolment, bid submission etc. or any other transaction on the Site.

Information Collected:

When you choose to provide personal or business information to us to conduct an online transaction, we use it only for the purpose of conducting the specific online transaction that you requested. The information is also used for the purpose of vendor searches. For each online transaction, we require only a minimum amount of personal and business information required to process your transaction.

When you visit our portal to browse, read pages, or download information, we automatically collect and store only the following information:

The Internet domain and IP address from which you access our portal; The

date and time you access our portal;

The pages you visit

This information would help us to make our site more useful to visitors and to learn about the number of visitors to our site and the types of technology our visitors use.

We do not give, share, sell or transfer any personal information to a third party unless required to do so by law. If you do not want any personal or business information to be collected, please do not submit it to us; however, without this required information we will be unable to process your online bid submission or any other online transaction. Review, update and correction of any personal or business information can be done directly on the Site.

Use of Cookies:

When you choose to enter into an online transaction, we use cookies to save the information that you input while progressing through the transaction. A cookie is a very small amount of data that is sent from our server to your computer's hard drive. By enabling this feature, the cookie will remember the data entered by you and next time when you visit this site, the data stored in the cookie will be available in future.

Security:

The Site has security measures in place to protect against the loss, misuse and alteration of information under our control.

eMail/ SMS Notifications:

The GePNIC eProcurement Server has functionality of automatically sending eMail / SMS alerts at various events as per the bidders preference. There is no manual intervention while sending these pre-defined eMail / SMS alerts. All events for which eMails / SMS being sent is also available to users on the Dash Board / the user login of the Bidder. Although all efforts will be made to ensure timely delivery of eMail / SMS, due to dependency in various other external factors, the delivery of eMail / SMS may not be assured and bidders are requested to check the portal on a periodic basis for any such events. Non receipt of eMail / SMS cannot be quoted as a reason for failure of service as this is an added facility being provided to users.

ANNEXURES

Annexure-I

FORMAT FOR LETTER OF BID

(To be uploaded by the Bidder on his Letter Head during submission of bid online)

To,
The Tender Committee
CMPDI, Ranchi

Sub: BID for the Work “ ”.

NIT No.:

Tender Id No:.....

Dear Sir,

This has reference to above referred bid. I/we have read and examined the conditions of contract, Scope of Work, technical specifications, BOQ and other documents carefully.

I /We am/are pleased to submit our bid for the above work. I/We hereby unconditionally accept the bid conditions and bid documents in its entirety for the above work and agree to abide by and fulfil all terms and conditions and specifications as contained in the bid document.

I/we here by submit all the documents as required to meet the eligibility criteria as per provision of the bid notice/document.

I/We hereby confirm that this bid complies with the Bid validity, Bid security and other documents as required by the Bidding documents.

If any information furnished by me/us towards eligibility criteria of this bid is found to be incorrect at any time, penal action as deemed fit may be taken against me/us for which I/We shall have no claim against CIL/Subsidiary.

Until a formal agreement is prepared and executed, this bid and your subsequent Letter of Acceptance/Work Order shall constitute a binding contract between us and CIL/ Subsidiary. Should this bid be accepted, we agree to furnish Performance Security within 21 days of issue of letter of acceptance and commence the work within 10 days of issue of letter of acceptance. In case of our failure to abide by the said provision Central Mine Planning and Design Institute, Ltd, Ranchi shall, without prejudice to any other right or remedy, be at liberty to cancel the letter of acceptance/ award and the company shall ban us for a period of 01 (one year) from being eligible to submit Bids in CIL and its subsidiaries from the date of issue of such letter (containing the intimation of banning). This banning shall be done under the provisions of the NIT and online blocking of the bidder shall be done in CIL e Procurement portal.

(This document is digitally signed by the DSC holder authorised by the bidder and therefore no physical signature is required)

PROFORMA FOR UNDERTAKING

(To be uploaded by the Bidder on his Letter Head during submission of bid online)

I / We,
Proprietor/Partner/Legal
Attorney/Director/ Accredited Representative of M/S....., solemnly declare that:

1. I/We am/are submitting Bid for the work against Bid Notice
No. Dated..... and I/we offer to execute the work in accordance with all the terms, conditions and provisions of the bid.
2. Myself/Our Partners/Directors don't has/have any relative as employee of CIL/ Subsidiary.
3. All information furnished by us in respect of fulfilment of eligibility criteria and qualification information of this Bid is complete, correct and true.
4. All copy of documents, credentials and documents submitted along with this Bid are genuine, authentic, true and valid.
5. I/ We hereby authorize department to seek references / clarifications from our Bankers.
6. We hereby undertake that we shall register and obtain license from the competent authority under the contract labour (Regulation & Abolition Act) as relevant, if applicable.
7. *I/We hereby confirm that we have registration with CMPF / EPF Authorities. We shall make necessary payments as required under law.

Or

*I/We hereby undertake that we shall take appropriate steps for registration as relevant under CMPF / EPF authorities, if applicable. We shall make necessary payments as required under law.

*** Delete whichever is not applicable.**

8. ** I/We have not been banned or delisted by any Govt., or Quasi Govt. Agencies or PSUs.

Or

**I / We have been banned by the organization named “ _____ ” for a period of..... year/s, effective from to.....

**** Delete whichever is not applicable.**

9. I/We have not been debarred by any procuring entity for violation of Preference to Make in India (as applicable) vide Order No. P-45021/2/2017-PP (BE-II) dated 16.09.2020, issued by Govt. of India as amended from time to time (not applicable for works with estimated value put to tender less than 5 lakh).
10. If any information and document submitted is found to be false/ incorrect at any time, department may cancel my/our Bid and action as deemed fit may be taken against me/us,

including termination of the contract, forfeiture of all dues including Earnest Money and banning of our firm and all partners of the firm etc.

**MANDATE FORM FOR ELECTRONIC FUND TRANSFER / INTERNET
BANKING PAYMENT.**

To
Central Mine Planning & Design Institute Limited,
Gondwana Place, Kanke Road, Ranchi -834008.

Sub: Authorization for release of payment due from Central Mine Planning & Design Institute Limited,
Gondwana Place, Kanke Road, Ranchi through Electronic Fund transfer/ Internet Banking.(SBI-NET)

Ref: Order No. Date and/or Tender/Enquiry/Letter No. Date
(Please fill in the information in CAPITAL LETTERS, Please TICK wherever it is applicable).

1. Name of the Bidder :

2. Address of the Bidder :
City..... Pin Code..... E-mail Id

Permanent Account Number

3. Particulars of Bank:

Bank Name							Branch Name															
Branch Place							Branch City															
Pin Code							Branch Code															
MICR No.																						
(Digital Code number appearing on the MICR Band of the cheques supplied by the Bank. Please attach Xerox copy of a cheque of your Bank for ensuring accuracy of the Bank Name, Branch Name and Code Number.)																						
RT GS CO DE																						
Account Type		Savings				Current				Cash Credit												
Account Number(as appearing in the Cheque Book.)																						

4. Date from which the mandate should be effective

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected for reasons of incomplete or incorrect information. I shall not hold Company responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of amount through SBI Net / RTGS transfer/NEFT. I agree to discharge responsibility expected of me as a participant under the scheme. Any bank charges levied by the bank for such e-transfer shall be borne by us.

Place :

Date :

**Signature of the Party / Authorised
Signatory**

Certified that particulars furnished above are correct as per our records.

Banker's Stamp

Date :

**Signature of the Authorised official from the
Bank)**

PROFORMA OF BANK GUARANTEE INLIEU OF
BID SECURITY/EARNEST MONEY

To,

.....
.....
.....

Re: Bank Guarantee in respect of Contract No....., Dated.....
Between (Name of the company) and(Name of the Contractor)

WHEREAS

..... (Name and address of the Contractor) (herein after called "the Contractor") has entered into a contract made as per letter of acceptance..... dated (herein after called the said contract) with (name of the Company) (hereinafter called "the Company") to execute (name of the contract and brief description of work) on the terms and conditions contained in the said contract.

It has been agreed that the Contractor shall furnish a Performance Security in the shape of Bank Guarantee from a Schedule bank for a sum of Rs..... as security for due compliance and performance of the terms and conditions of the said contract.

We..... (name of the Bank) having its branch/Office at..... have, at the request of the Contractor, agreed to furnish this bank Guarantee by way of performance Security.

NOW, THEREFORE, we the.....Bank (herein after called The Bank) hereby, unconditionally and

irrevocably, guarantees and affirms as follows:

The Bank do hereby irrevocably guarantees and unconditionally agree with the Company that if the contractor shall in any way fail to observe or perform the terms and conditions of the said contract or shall commit any breach of its obligation there under, the Bank shall on its mere first written demand, and without any objection, demur and without any reference to the contractor, pay to the company the said sum of or such portion as shall then remain due with interest without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the sum, or failing on the company to compel such payment by the contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the company and as regards the amount payable by the Bank under this Guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the company and the Contractor regarding the claim.

The Bank further agree that the Guarantee shall come into force from the date hereof and shall remain in force and effect till the period that will be taken for the performance of the said Contract which is likely to be day of but if the period of Contract is extended either pursuant to the provisions in the said contract or by mutual agreement between the contractor and the company, the Bank shall renew the period of the Bank Guarantee failing which it shall pay to the company the said sum of or such lesser amount of the said sum of as may be due

to the company and as the company may demand.

This Guarantee shall remain in force until the dues of the company in respect of the said sum of and interest are fully satisfied and the Company certifies that the Contract has been fully carried out by the Contractor and discharged the guarantee.

The Bank further agrees with the company that the company shall have the fullest liberty without consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of the said contract from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forebear to enforce any of the terms and conditions

relating to the said Contract and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the Contractor or to any forbearance, act or omissions on the part of the

company or any indulgence by the Company to the Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this Guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the company the said sum ofor such lesser sum as may then be deemed to the Company and as the Company may require.

Notwithstanding anything contained herein the liability of the Bank under this Guarantee is restricted to Rs..... The guarantee shall remain in force till the day*..... of*. and unless the guarantee is renewed or claim is preferred against the bank on or before the said date all rights of the Company under this guarantee shall cease and the Bank shall be relieved and discharged from all liabilities hereunder except as provided in the preceding Clause.

* The date of guarantee shall cover a period of minimum one year or 90 days beyond the date of completion whichever is more.

Any notice by way of request, demand or otherwise hereunder maybe sent by post/e-mail/Fax addressed to the bank branch/operative branch, which shall be deemed to be a sufficient demand notice. Bank shall effect payment thereof forthwith.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

The Bank has under its constitution power to give this Guarantee and SriW
.....
ho
has signed it on behalf of the Bank has authority to do so.

Signed and sealed this.....day of.....at.....

SIGNED, SEALED AND DELIVERED
For and on behalf of the Bank by:

(Signature)(Name)

(Designation) (Code number)(address)

“The Bank Guarantee as referred above shall be operative at our branch at...
.....payable
at.....

(NIT shall specify town/city of the operative Branch. Bank Guarantee shall specify name of the branch with address of the specified town/city)”

NOTE:- The department shall ensure extension of guarantee period in case of extension of time.

PROFORMA OF JOINT VENTURE AGREEMENT

(On Non-Judicial Stamp paper of appropriate value as per provision of the Stamp Act applicable in the concerned state)

This Joint Venture agreement is made on thisday of.....
AMONGST/BETWEEN

M/s....., having its registered Office at

Represented by Shri.....(Name and Designation) of M/s..... Who has power of Attorney to enter into Joint Venture with andSign all documents/ agreements on behalf of M/s..... (hereinafter referred to as".....")

AND

M/s....., having its registered Office at

Represented by Shri.....(Name and Designation) of M/s..... who has power of Attorney to enter into Joint Venture with..... andSign all documents/agreements on behalf of M/s..... (hereinafter referred to as".....").

AND

M/s....., having its registered Office at

Represented by Shri.....(Name and Designation) of M/s..... who has power of Attorney to enter into Joint Venture with..... andSign all documents/agreements on behalf of M/s..... (hereinafter referred to as".....").

The expressions M/sand M/s.....and M/s .. shall, wherever the context admits, mean and include their respective legal representatives, successors-in-interest and assigns and shall collectively be referred to as "Joint Venture /Parties" and individually as "Joint Venture Partner/Party".

WHEREAS M/s.....and M/sagreed to form a Joint Venture in order to join their forces to obtain best results from the combinations of their individual resources of technical and management skill, finance and equipment for the benefit of the project and in order to submit the Bid for the work of ".....

..... (Hereinafter referred to as "Project") under... (Name of Company(hereinafter referred to as "the principle Employer").

The Parties hereby enter into this Joint Venture Agreement (hereinafter referred to as "Joint Venture agreement") to jointly prepare and submit the Bid for the Project and in the event of securing the Project from the Employer, to execute the Project in accordance with the Contract terms and conditions, to the satisfaction of the Principal Employer.

NOW THEREFORE, the parties, in consideration of the mutual premises contained herein, agree as follows:

1) FORMATION AND TERMINATION OF THE JOINT VENTURE.

The parties under this Agreement have decided to form a Joint Venture to submit the Bid for the above Project and execute the Contract with the Principal Employer for the Project, if qualified and awarded.

- a) The name and style of the Joint Venture shall be " " (hereinafter called the "Joint Venture ")
- b) The Head Office of the Joint Venture shall be located at..... and the site office will be located at the site of the Project. All communication regarding the project will be made to..... Telephone Nos.....

- c) Neither of the parties of the Joint Venture shall be allowed to sign, pledge, sell or otherwise dispose all or part of its respective interests in the Joint Venture to any party including the existing partner of the Joint Venture.
- d) The terms of the Joint Venture shall begin as on the date first set forth above and shall terminate on the earliest of the following dates.
 - i) The Joint Venture fails to obtain qualification from the Employer.
 - ii) The Contract for the Project is not awarded to the Joint Venture.
 - iii) The Employer cancels the Project.
 - iv) The Project is completed including defects liability period to the satisfaction of the Employer and all the parties complete any and all duties, liabilities and responsibilities under or in connection with the Contract and the Joint Venture agreement.

2) LEAD PARTNER.

M/s..... shall be the Lead Partner of the Joint Venture and is In-charge for performing the contract management. M/s..... shall be attorney of the parties duly authorized to incur liabilities and receive instructions for and on behalf of any and all partners in the Joint Venture and also all the partners of the Joint Venture shall be jointly and severally liable during the bidding process and for the execution of the contract as per contract terms with the employer in accordance with the power of attorney annexed. All Joint Venture partners M/s..... ; M/s..... & M/s..... nominate and authorize Shri(name and designation) of M/s..... to sign all letters, correspondence, papers & certificates and to submit the Pre-qualification Application / Bid documents for and on behalf of the Joint Venture.

3) REPRESENTATIVE OF THE PARTNERS OF THE JOINT VENTURE.

Each constituent party of the Joint Venture appoints the following personnel as the representative of the relevant party with full power of attorney from the Board of Directors of the concerned company, or from the partners of the entity, or from the proprietor.

<u>JV Partner</u>	<u>Name</u>	<u>Position in the respective Company</u>
-------------------	-------------	---

M/s.....

M/s.....

M/s

4) PARTICIPATION SHARE & WORK RESPONSIBILITIES.

4.1 The parties agree that their respective participation share (hereinafter called 'Participation Share') in the Joint Venture shall be as follows:

M/s..... :% (per cent)

M/s..... :% (per cent) and

M/s..... :% (per cent)

4.2 The Parties shall share the rights and obligations, risk, cost and expenses, working capitals, profits or losses or others arising out of or in relation to execution of the Project in proportion to their share of participation in the Joint Venture except as otherwise agreed.

4.3 The parties shall jointly execute the works under the Project as an integrated entity and allocate responsibilities as regards division of work between themselves by organizing the adequate resources for successful completion of the Project. However all parties shall remain jointly and severally responsible for the satisfactory execution of the Project in accordance with the Contract terms and conditions.

5) JOINT AND SEVERAL LIABILITIES.

All partner of Joint Venture shall be liable jointly and severally during the Pre-qualification and Bidding process; and in the event the contract is awarded, during the execution of the Contract, in accordance with Contract terms.

6) WORKING CAPITAL

Each party shall contribute working capital for equipment, labour and material or any expenses incurred for execution of the Project or any other investment required in connection with the execution of the project proportionate to the participation ratio.

7) BID SECURITY:

Bid Security, Performance Security and other securities shall be paid by the Joint Venture except as otherwise agreed.

8) PERSONNEL & EQUIPMENT

Team of Managers / Engineers of all the partners of the Joint Venture will form part of the core management structure and assist in execution of the project. The list of Personnel and equipment proposed to be engaged for the project by each Party will be decided by the management committee.

9) NON PERFORMANCE OF RESPONSIBILITY BY ANY PARTY OF JOINT VENTURE .

- a) As between themselves, each Party shall be fully responsible for the fulfillment of all obligations arising out of its scope of the work for the Project to be clarified subject to the Agreement between the Parties and shall hold harmless and indemnified against any damage arising from its default or non-fulfillment of such obligations.
- b) If any Party fails to perform its obligations described in this Agreement during the execution of the Project and to cure such breach within the period designated by the non-defaulting party, then the other party shall have the right to take up work, the interest and responsibilities of the defaulting party at the cost of the defaulting party.
- c) Stepping into the shoes of the existing partner of Joint Venture with all the liabilities of the existing partner from the beginning of the contract with the prior approval on Northern Company.
- d) Notwithstanding demarcation or allotment of work of between/amongst Joint Venture partners, Joint Venture shall be liable for non-performance of the whole contract irrespective of their demarcation or share of work.
- e) In case bid being accepted by Company, the payments under the contract shall only be made to the Joint Venture and not to the individual partners.

10) BANK A/C.

Separate Bank A/c. shall be opened in the name of the Joint Venture in a scheduled or Nationalized Bank in India as per mutual Agreement and all payments due to the Joint Venture shall be received only in that account, which shall be operated jointly by the representative of the Parties hereto. The financial obligations of the Joint Venture shall be discharged through the said Joint Venture Bank Account only and also all the payments received or paid by company to the Joint Venture shall be through that account alone.

11) LIMIT OF JOINT VENTURE ACTIVITIES.

The Joint Venture activities are limited to the bidding and in case of award, to the performance of the Contract for the Project according to the conditions of the Contract with the Employer.

12) TAXES.

Each Party shall be responsible for its own taxes, duties and other levies to be imposed on each party in connection with the Project. The taxes, duties and other levies imposed on the Joint Venture in connection with the Project shall be paid from the account of the Joint Venture.

13) EXCLUSIVITY

The Parties hereto agree and undertake that they shall not directly or indirectly either individually or with other party or parties take part in the Bid for the said Project. Each Party further guarantees to the other party hereto that this undertaking shall also apply to its subsidiaries and companies under its direct or indirect control.

14) MISCELLANEOUS:

- a. Neither party of the Joint Venture shall assign, pledge, sell or otherwise dispose all or part of its respective interests in the Joint Venture to all third party without the Agreement of the other party in writing.
- b. Subject to the above clause, the terms and conditions of this agreement shall be binding upon the parties, the Directors, Officers, Employees, Successors, Assigns and Representatives.

15) APPLICABLE LAW

This agreement shall be interpreted under laws and regulations of India.

IN WITNESS Whereof the Parties hereto have hereunder set their respective hands and seals the day, month, year first above written.

For

For

Signature _____
(Name & Address)

Signature _____
(Name & Address)

(Official Seal)

(Official Seal)

Place

Place.....

Date

Date

Witness - 1.

Witness- 2.

Signature

Signature

(Name & Address)

(Name & Address)

PRE CONTRACT INTEGRITY PACT**General**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on day of the month of 20..., between, on one hand, Coal India Limited/Subsidiary Cos. acting through Shri, Designation of the officer, (hereinafter called the "BUYER / Principal", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s. represented by Shri, Chief Executive Officer (hereinafter called the "BIDDER/Seller/Contractor" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the **BUYER** proposes to procure(Name of the Stores/Equipment/Item) and the **BIDDER/Seller** is willing to offer/has offered the stores and

WHEREAS the **BIDDER** is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the **BUYER** is a Central Public Sector Unit.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Section 1 – Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for , or the execution of a contract, demand ; take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c. Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/ PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

(1) The Bidder(s) / Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s) / Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non- submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

c. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/ PC Act; further the Bidder(s) / Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s) / Contractors(s) of foreign origin shall disclose the name and address of the Agents/ representatives in India , if any, Similarly the Bidder(s) /Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s).Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only.

e. The Bidder(s) / Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

f. Bidder(s) / Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder, before contract award, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

(1) If the Bidder / Contractor / Supplier has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is also entitled to exclude the Bidder / Contractor / Supplier from future contract award processes. The imposition

and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case. In particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

(2) A transgression is considered to have occurred if the Principal, after due consideration of available facts and evidences within his / her knowledge concludes that there is a reasonable ground to suspect violation of any commitment listed under Section 2 i.e " Commitments of Bidder(s) / Contractor(s).

(3) The Bidder accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

(4) If the Bidder / Contractor / Supplier can prove that he has restored / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely."

Section 4 - Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous transgression

(1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business".

Section 6 - Equal treatment of all Bidders / Contractors / Subcontractors

(1) In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.

(2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidder(s) / Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitor

(1) The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his/ her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It will be obligatory for him / her to treat the information and documents of the Bidders/Contractors as confidential.

He/ she reports to the Chairman, Coal India Limited / CMD, Subsidiary Companies

(3) The Bidder(s) / Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/ her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.

(4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) / Contractor(s) / Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, Coal India Limited / CMD, Subsidiary Companies and recuse himself / herself from that case.

(5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/ she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(7) The Monitor will submit a written report to the Chairman, Coal India Limited / CMD, Subsidiary Companies within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Chairman, Coal India Limited / CMD, Subsidiary Companies, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Chairman, Coal India Limited / CMD, Subsidiary Companies has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

(9) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman Coal India Limited / CMD, Subsidiary Companies.

Section 10 - Other provisions

(1) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(2) If the Contractor is a partnership or a Joint Venture, this agreement must be signed by all partners or JV members.

(3) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(4) Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.

(5) In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

Section 11- Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Section 12- Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

Section 13 - Other Legal Actions.

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

(For & On behalf of the Principal)

(For & On behalf of Bidder/ Contractor)

(Office Seal)

(Office Seal)

**Place.....
Date**

**Witness 1:
(Name & Address)**

**Witness 2:
(Name & Address)**

PROFORMA FOR EXECUTION OF AGREEMENT**STAMP PAPER**
(of appropriate value as per Stamp Act)

This agreement is made on day of..... between (Name of Company) having its registered office at (hereinafter called the 'COMPANY' which expression shall, unless repugnant to the subject or context, include its successors and assignees) of the one part and (Name of the Contractor) carrying on business as a (partnership/ proprietorship/ Ltd. Co. etc.) firm under the name and style (hereinafter called the 'said Contractor' which expression shall, unless the context requires otherwise include them and their respective heirs, executors, administrators and legal representatives) of the other part.

Whereas the Company invited tenders for the work of "....." and whereas the said Contractor/ Firm submitted tender for the said work and deposited a sum of Rs...as Earnest Money and whereas the tender of the said contract has been accepted by the Company for execution of the said work.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1) In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinafter referred to.
- 2) The following documents which are annexed to this agreement should be deemed to form and be read and construed as part of this agreement viz.
 - i) Annexure-A Tender Notice (Page .. to ..)
 - ii) Schedule -A General Terms & Conditions, Special Conditions and General Technical Specification (Page to ...) and Safety Code.
 - iii) Schedule-B The probable Quantities and Amount (Page ... to ...)
 - iv) Schedule-C Negotiation letters –
 - v) Schedule-D Letter of Acceptance/Work Order (Page .. to ..)
 - v) Schedule-E Drawings (Page .. to ..)
- 3) In consideration for the payment of the sum of Rs(W/O Value; both in words and figures) or such other sum as may be arrived at under the clause of the specification relating to Payment by items measurements at unit prices by the Company, the said Contractor shall, subject to the terms & condition contained herein execute and complete the work as described and to the extent of probable quantities as indicated in Schedule B with such variations by way of alteration, addition to or reduction from the said works.

4) The company has received a sum of Rs.towards Performance Security Deposit (1st part of Security Deposit) in the form of Demand Draft / Certified Cheque/ B.G./ *other form (details to be furnished)* .

5) The said contractor hereby covenants with the company that the company shall deduct at 5% of R/A Bills as Retention Money (2nd part of security deposit) as per the terms & condition of the tender/ contract.

IN WITNESS WHEREOF THE parties herein have set their hands and seals the date and year above written.

2 Partner Signature

On behalf of M/S.....
The Contractor, as one of the constituted attorney, In
the presence of –

1. Name _____ Signature _____

Address :

Occupation :

**Signed by Srion behalf of
(Name of Company) in presence of -**

a) Name : Signature
b) Address: .

To be submitted by Bidder on Non-Judicial Stamp Paper of Rs. 10/- duly attested by Notary

Public.

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION INRESPECT OF WTER PROOFING WORKS.

The agreement made this day of Two thousand and between (Hereinafter called Guarantor of the one part) and Limited (hereinafter called the Owner of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the contract), dated and made between the GUARANTOR OF THE ONE part and the Limited of the other part, whereby the contractor, inter-alia, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS the Guarantor agreed to give a guarantee to the effect that the said structures will remain water and leak proof for five years from the date of giving water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

- a) Misuse of roof shall mean any operation, which will damage proofing treatment, like chopping of fire wood and things of the same nature which might cause damage to the roof.
- b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.
- c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee, the Guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer-in-Charge calling upon him to rectify the defects failing which the work shall be got done by Coalfields by some other Contractor at the guarantor's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the water proofing or commits breach thereunder, then the Guarantor will indemnify the principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by Coalfields, the decision of the Engineer-in-Charge will final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Guarantor..... and by and for and on behalf of Limited on the day, month and year first above written.

Signed, sealed and delivered by Guarantor in the presence of -1.

2.

Signed for and on behalf of Limited by
In presence of:1.

CONSENT TO ARBITRATION CLAUSE 16 and 16A

(Applicable in case of Partnership firm/Joint Venture)

We,.....(

Name of Partners of
Partnership Firm/Joint Venture), partners of

.....(Name of
Partnership Firm/Joint Venture) hereby consent to abide by the provisions of Clause 16 and 16A of
General Terms and Conditions pertaining to arbitration.

(Name, Signature and Seal of Partners of Partnership Firm)s

(On Non-Judicial Stamp paper of appropriate value as per provision of the Stamp Act applicable in
the concerned state)

**Performa for certificate regarding Restrictions under Rule 144 (xi) of the GFRs,2017 to be uploaded by bidder during submission of bid online on the LETTER HEAD OF BIDDER
(As enrolled on the e-Procurement Portal of CIL) :**

“Certificate regarding compliance to order no.F.No.6/18/2019-PPD dt 23/7/2020 as amended from time to time of Ministry of Finance, Dept of Expenditure, Public Procurement Division with respect to restrictions on procurement of goods, services or works from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries”

Name of work	
NIT No.	
Tender ID	

I/we have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we certify that I am/ we are not from such a country or, if from such a country, has/have been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries un- less such contractor is registered with the Competent Authority. I hereby certify that I/we fulfil all requirements in this regard and I am/ we are eligible to be considered.

(Where applicable, evidence of Competent Authority shall be attached.)

(This document is digitally signed by the DSC holder authorized by the bidder and therefore no physical signature is required).

BANK GUARANTEE PROFORMA FOR PERFORMANCE SECURITY/
GUARANTEE

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT)

(TO BE ISSUED BY ANY NATIONALISED/ SCHEDULED BANK AUTHORISED BY RBI TO ISSUE A
BANK GUARANTEE)

To

**Central Mine Planning & Design Institute Limited,
Regional Institute-IV, Jaripatka, Nagpur-440014**

In consideration of the **Central Mine Planning & Design Institute Limited, Regional Institute, Nagpur-440014**, having its Registered office at CMPDIL,, **Gondwana Place, Kanke Road, Ranchi – 834 031**(hereinafter called to as the “Employer” which expression shall unless repugnant to the context or meaning thereof, include all successors, administrators and assigns) having awarded to _____ *[Name & Address of the Contractor]* (hereinafter called to as “Contractor” which expression shall unless repugnant to the context of meaning thereof include its successors, administrators, executors and assigns) the work _____ *[Name of the Work]* by issue of Letter of Award No. _____ *[Work Order / Letter of Intent No.]* and the same having been unequivocally accepted by the Contractor resulting into a Contract Agreement dated _____ valued at _____ *[value of Work]*

Order] (hereinafter called ‘the Contract’) and the Employer having agreed to accept Performance Bank Guarantee of _____ *[indicate figure]/%* of the Contract Sum _____ *[amount in figures and words]* from a Nationalized / Scheduled Bank for due performance of the work executed by the Contractor as per the terms & conditions contained in the said Contract.

We, _____ *[name of the Bank]*, of _____ *[address of the Bank]* (hereinafter called to as “Bank” which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer immediately on demand and or, all money payable by the Contractor to the extent of

_____ *[amount of guarantee in figures and words]*, at any time from _____ to _____ without any demur, reservation, recourse, contest or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. We agree that the Guarantee herein contained shall be irrecoverable and shall continue to be enforceable as per the terms & conditions contained in the said Contract.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee, from time to time, to extend the validity of time of Performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this Guarantee, to postpone, from time to time, the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forebear or to enforce any covenants contained or implied in the Contract, between the Employer and the Contractor or any other course or remedy or security

available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to matter aforesaid or any of them or by reason of any other act of forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank. The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor in first instance, without proceeding against the Contractor and notwithstanding any security or other Guarantee that the Employer may have in relation to the Contractor's liabilities.

Dated this _____ day of _____ at _____

For and on behalf of the Bank

Signature _____

Name _____

Designation _____

Common Seal of Bank _____

SECTION 4

CONDITIONS OF CONTRACT

- A. GENERAL TERMS AND CONDITIONS OF CONTRACT**
- B. ADDITIONAL TERMS & CONDITIONS OF CONTRACT**
- C. GENERAL TECHNICAL CONDITIONS**
- D. ERRECTION CONDITIONS OF CONTRACT**

4A. GENERAL TERMS AND CONDITIONS OF CONTRACT

4.1. DEFINITIONS

- i. The word "Company" or "Employer" or "Owner" wherever occurs in the conditions, means the Central Mine Planning and Design Institute Ltd (CMPDIL) , represented by the authorised representative or any other officer specially deputed for the purpose.
- ii. The word "Principal Employer" or "Engineer" wherever occurs, means the authorised representative or any other officer specially deputed by the Company for the purpose of contract.
- iii. The word "Contractor"/"Contractors" or "Manufacturer" wherever occurs means the successful Bidder/Bidders who has/have deposited the necessary Earnest Money and has/have been given written intimation about the acceptance of tender and shall include legal representative of such individual or persons composing a firm or a company or the successors and permitted assignees of such individual, firm or company, as the case may be.
- iv. "The Site" shall mean the site of the contract work including land and any building and erections thereon and any other land allotted by the company for contractor's use in the performance of the contract.
- v. The term "sub-contractor", as employed herein, includes those having a direct contract with contractor either on piece rate, items rate, time rate or on any other basis and it includes one who furnishes work to a special design according to the plans or specifications of this work but does not include one who merely supplied materials.
- vi. "Consulting Engineer"/"Consultant" shall mean any firm or person duly appointed as such from time to time by the owner.
- vii. 'Accepting authority' shall mean the management of the company and includes an authorized representative of the company or any other person or body of persons empowered in this behalf by the company.
- viii. A 'Day' shall mean a day of 24 hours from midnight to midnight.
- ix. Engineer-in-charge/Designated Officer-in-charge who is of an appropriate seniority will be responsible for supervising and administering the contract, certifying payment due to the contractor, valuing variations to the contract, awarding extension of time and valuing compensation events. Engineer-in-charge/Designated Officer-in-charge may further appoint his representatives i.e. another person/ Project Manager or any other competent person and notify to the contractor who is directly responsible for supervising the work being executed at the site, on his behalf under the Delegation of Powers of the company. However, overall responsibility, as far as the contract is concerned will be that of the Engineer-in-charge/Designated Officer-in-charge.
- x. The 'contract' shall mean the notice inviting tender, the tender as accepted by the company and the formal agreement executed between the company and the contractor together with the documents referred to therein including conditions of contract, special

conditions, if any, specifications, designs & drawings including those to be submitted during progress of work, scope of work, billing schedule/schedule of quantities with rates and amounts.

xi. The 'works' shall mean and include the furnishing of equipment, labour, and the services in accordance with the contract or parts thereof as the case may be and shall also include all extra or additional, altered or substituted works or any work of emergent nature, which in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or become necessary for security.

xii. "Specification" shall mean the technical specifications forming a part of the contract and such other schedules and drawings as may be mutually agreed upon.

xiii. 'Contract price' shall mean the total sum for which tender is accepted by the company.

xiv. 'Written notice' shall mean a notice or communication in writing and shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an office of the Corporation/Company for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

xv. "Letter of Acceptance" of the tender shall mean the official notice issued by the company notifying the contractor that his tender has been accepted.

xvi. "Date of Contract" shall mean the date on which both the parties have signed the contract agreement.

xvii. "Manufacturer's Works" or "Contractor's Works" shall mean the place of work used by the Manufacturer, the Contractor, their collaborators or sub-contractors for the performance of the works.

xviii. "Inspector" shall mean the Owner or any person nominated by the Owner from time to time, to inspect the equipment stores or Works under the contract and/or the duly authorised representative of the owner.

xix. When the words "Approved", "Subject to Approval", "Satisfactory", "Equal to", "Proper", "Requested", "As directed", "Where directed", "When directed", "Determined by", "Accepted", "Permitted", or words and phrases of like import are used, the approval, judgment, direction etc. is understood to be a function of the Owner/Engineer/Engineer-in-Charge.

xx. "Test of Completion" shall mean such tests as prescribed in the contract to be performed by the contractor before the Works is taken over by the Owner.

xxi. "Start-up" shall mean the time period required to bring the equipment covered under the Contract from an inactive condition, when construction is essentially complete, to the state ready for trial operation. The start-up period shall include preliminary inspection and check out of equipment and supporting sub-systems; initial operation of the complete equipment covered under the Contract to obtain necessary pre-trial operation data,

perform calibration and corrective action; shut down inspection and adjustment prior to the trial operation period.

xxii. "Initial operation" shall mean the first integral operation of the complete equipment covered under the contract with sub-systems and supporting equipment in service.

xxiii. "Trial Operation", "Reliability Test", "Trial Run", "Complete Test" shall mean the extended period of time after the "Start-up" period. During this trial operation period the unit shall be operated over the full load range. The length of Trial Operation shall be as determined by the Engineer, unless otherwise specified elsewhere in the Contract.

xxiv. "Performance and Guarantee Tests" shall mean all operation checks and tests required to determine and demonstrate capacity, efficiency, and operating characteristics as specified in the contract document.

xxv. "Commercial Operation" shall mean the condition of operation in which the complete equipment covered under the contract is officially declared by the owner to be available for continuous operation at different loads upto and including rated capacity. Such declaration by the owner however, shall not relieve or prejudice any of the contractor's obligation under this contract.

xxvi. "Final Acceptance" shall mean the owner's written acceptance of the works performed under the contract, after successful completion of performance and guarantee tests.

xxvii. "Guarantee Period/Maintenance Period" shall mean the period during which the contractor shall remain liable for repair or replacement of any defective part of the works performed under the contract.

Xxviii "Drawings"/"Plans" shall mean all :

- (a) Drawings furnished by the owner/consultant as a basis for proposals,
- (b) supplementary drawings furnished by the Owner/Consultant to clarify and to define in greater detail the intent of the contract,
- (c) drawings submitted by the contractor with his proposal provided such drawings are acceptable to the Owner/Consultant,
- (d) drawings furnished by the Owner/Consultant to the Contractor during the progress of the work, and
- (e) engineering data and drawings submitted by the Contractor during the progress of the work provided such drawings are acceptable to the Engineer,

xxix. "Codes" shall mean the following, including the latest amendments, and/or replacements, if any :

- (a) Standards of Bureau of Indian Standards relevant to the works under the contract and their specifications.
- (b) Other Internationally approved Standards and/or rules and regulations touching the subject matter of the contract.
- (i) A.S.M.E. Test codes.
- (ii) A.I.E.E. Test codes.
- (iii) American Society of Materials Testing Codes.

- (iv) Indian Electricity Act and Rules and Regulations made thereunder.
 - (v) Indian Explosive Act and Rules and Regulations made thereunder.
 - (vi) Indian Petroleum Act and Rules and Regulations made thereunder.
 - (vii) Indian Mines Act and Rules and Regulations made thereunder.
 - (c) Any other laws, rules, regulations and Acts applicable in the country with respect to labour, safety, compensation, insurance etc.
- xxx Words importing singular only shall also include the plural and vice-versa where the context so requires.
- xxxi Words importing "Person" shall include firms, companies, corporations, and associations or bodies of individuals, whether incorporated or not.
- xxxii Terms and expressions, not defined herein, shall have the same meaning as are assigned to them in the Indian Sale of Goods Act, failing that in the Indian Contract Act, and failing that in the General Clauses Act.
- xxxiii "Commissioning" the plant/project shall mean completion in all respects of construction rendering the plan/project ready for performance test and commercial operation as per xxv.
- xxxiv "Government Approvals" shall mean all permits, licenses, authorisations, consents, clearances, decrees, waivers, privileges, approvals from and filing with government instrumentalities necessary for the development, construction and operation of the plant/project.
- xxxv "Month" shall mean a calendar month according to the Gregorian calendar.
- xxxvi "Bank Guarantee" shall mean the Bank Guarantee to be provided by the contractor to Central Mine Planning and Design Institute Ltd (CMPDIL)

4.2. CONTRACT DOCUMENTS

The following documents shall constitute the contract documents:

- (i) Articles of Agreement,
- (ii) Notice Inviting Tender,
- (iii) Letter of Acceptance of Tender indicating deviations, if any, from the conditions of contract incorporated in the Tender document issued to the bidder and/or the Bid submitted by the bidder,
- (iv) Conditions of contract, including general terms and conditions, additional terms and conditions, technical terms and conditions, erection terms and conditions, special conditions, if any etc. forming part of the Agreement,
- (v) Specifications, where it is part of Tender Documents,
- (vi) Scope of works/Bills of quantities/schedule of works/quantities and
- (vii) Contract Drawings/finalised work programme.

4.2.1 After acceptance of tender the Contractor shall be deemed to have carefully examined all Contract Documents to his satisfaction. If he shall have any doubt as to the meaning of

any portion of the Contract Documents, he shall before signing the Contract, set forth the particulars thereof, and submit them to the Owner in writing in order that such doubt may be removed. The Owner will provide such clarifications as may be necessary in writing to the Contractor. Any information otherwise obtained from the Owner or the Engineer shall not in any way relieve the Contractor of his responsibility to fulfill his obligations under the Contract.

- 4.2.2 The Contractor shall enter into a Contract Agreement with the Owner within 60 (sixty) days from the date of 'Acceptance of Tender' or within such extended time as may be granted by the owner. The performance Bank Guarantee for the proper fulfillment of the contract shall be furnished by the contractor in the prescribed form within thirty (30) days of 'Acceptance of tender'. The performance Guarantee shall be as per terms prescribed in clause 31 of Instructions to Bidders of this tender.
- 4.2.3 The owner, after the issue of the letter of Acceptance of Tender, will send one copy of the final agreement to the contractor for his scrutiny and approval.
- 4.2.4 The agreement, unless otherwise agreed to, shall be signed within 60 days of the issue of the letter of Acceptance of tender, at the office of the owner on a date and time to be mutually agreed. The contractor shall provide for signing of the contract, performance guarantee in copies as required, appropriate power of attorney and other requisite materials. In case it is agreed mutually that the contract is to be signed beyond the stipulated time, the bid guarantee submitted with the tender will have to be extended accordingly.
- 4.2.5 The agreement will be signed in six originals and the contractor shall be provided with one signed original and the rest will be retained by the owner. None of these documents shall be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.
- 4.2.6 The contractor shall provide free of cost to the owner all the engineering data, drawings and descriptive materials submitted with the bid, in at least three (3) copies to form a part of the contract immediately after issue of letter of acceptance.
- 4.2.7 Subsequent to signing of the contract, the contractor at his own cost shall provide the owner with at least three (3) true copies of agreement within thirty (30) days after the signing of the contract.
- 4.2.8 The contract shall be considered as having come into force from the date of the letter of acceptance of tender issued by the owner.

4.2.9 The laws applicable to this contract shall be the laws in force in India. The courts of Ranchi High Court shall have exclusive jurisdiction in all matters arising under this contract.

4.3 CONTRACT PERFORMANCE GUARANTEE/SECURITY DEPOSIT

4.3.1 Security Deposit shall consist of two parts;

- a) Performance Security to be submitted at award of work and
- b) Retention Money to be recovered from running bills.

The security deposit shall bear no interest.

4.3.2 Performance Security should be 3% of contract amount and should be submitted by the successful bidder within 30 days of issue of LOA in any of the form given below after which bid security/earnest money will be refunded to the contractor :

- a Bank Guarantee in the form given in the bid document from any schedule bank acceptable to the owner. Bank guarantee issued by out station bank shall be operative at their local branch at or at their branch at
- Govt. Securities, FDR or any other form of deposit stipulated by the owner and duly pledged in favour of owner.
- Demand Draft drawn in favour of Central Mine Planning and Design Institute Ltd on any scheduled Bank payable at its branch at Margherita.

The Earnest Money/ Bid Security deposited in the form of Bank Guarantee shall be discharged when the Bidder has signed the Agreement and furnished the required Performance Security/ 1st part of security deposit.

The bid security deposited in the form of Demand draft/ cash may be adjusted against the Performance security (1st part of security deposit) at bidder's option.

4.3.3 If performance security is provided by the successful bidder in the form of bank guarantee it shall be issued either -

- (a) at Bidder's option by a Scheduled Bank as per provisions of Cl. 4.3.2. The BG shall contain complete postal address, telephone number, fax number and e-mail address of both out station bank issuing the BG as well as its local operating branch.
- (b) by a foreign bank located in India and acceptable to the employer.

Performance security/ Retention money/ security deposit submitted in the form of BG shall be valid for 90 days after the end of Guarantee period.

Failure of the successful bidder to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security/earnest money.

In addition to the above penal measures, the bidder will not be allowed to participate in the re-tendering process. The bidder may also be debarred from participating in future tenders in the subsidiary for a minimum period of 12 Months.

4.3.4 Retention Money should be deducted at 5% from running bills. Total of performance security and Retention Money should not exceed 10% of contract amount or lesser sum indicated in the bid document.

Retention money may be released against equivalent bank guarantee only for values above Rs. 25.0 lakhs.

4.3.5 The Guarantee amount shall be payable to the Employer without any condition whatsoever.

4.3.6 Performance Security/ Retention money shall be converted into Performance Guarantee on successful completion of work in accordance with contract and upon satisfactory trial operation.

4.3.7 The Performance Guarantee shall cover additionally the following guarantees to the Employer:

- (a) The successful bidder guarantees the successful and satisfactory operation of the equipment furnished and erected under the contract, as per the specifications and documents,
- (b) The successful bidder further guarantees that the equipment provided and installed by him shall be free from all defects in design, material and workmanship and shall upon written notice from the employer fully remedy free of expenses to the Employer such defects as developed under the normal use of the said equipment within the period of guarantee specified in the relevant clause of the Conditions of Contract.

4.3.8 The Contract Performance Guarantee is intended to secure the performance of the entire Contract. However it is not construed as limiting the damages under clause entitled 'Equipment Performance Guarantee' in section Technical Conditions of Contract and damages stipulated in the other clauses in the bidding documents.

4.3.9 All Bank Guarantee are to be submitted in the format prescribed by the company in the bid document. Bank Guarantee shall be irrevocable and it shall be from any Scheduled

Bank acceptable to the owner. The BG used by outstation bank shall be operative at its local branch at or branch at

- 4.3.10 The Company shall be at liberty to deduct/appropriate from the Contract Performance Guarantee/Security Deposit such sums as are due and payable by the contractor to the company as may be determined in terms of the contract, and the amount appropriated from the Contract Performance Guarantee/Security Deposit shall have to be restored by Contractor subsequently.
- 4.3.11 The Contract Performance Guarantee will be returned to the Contractor without any interest at the end of the Guarantee Period as per provisions of the contract. Any defect/defects in the work, if detected during guaranteed period shall be rectified to the satisfaction of the Engineer-in-Charge within the said guarantee period or its due extension till completion of the rectification works as required.
- 4.3.12 Failure of the successful bidder to comply with the requirements of Sub-Clause 4.3.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the bid security.

In addition to the above penal measures, the bidder will not be allowed to participate in the re-tendering process. The bidder may also be debarred from participating in future tenders in the subsidiary for a minimum period of 24 Months.

4.5 ASSIGNMENT AND SUBLetting OF CONTRACT

- 4.5.1 The contractor may, after informing the engineer and getting his written approval, assign or sub-let the contract or any part thereof other than for raw materials, for minor detail or any part of the plant for which makes are identified in the contract. Suppliers of the equipment not identified in the contract or any change in the identified supplier shall be subject to approval by the engineer. The experience list of the equipment vendors under consideration by the contractor for this contract shall be furnished to the engineer for approval prior to procurement of all such items/equipments. Such assignment sub-letting shall not relieve the contractor from any obligation, duty or responsibility under the contract. Any assignment as above without prior written approval of engineer shall be void.
- 4.5.2 For components/ equipments procured by the contractors for the purposes of the contract, after obtaining the written approval of the owner, the contractor's purchase specifications and enquiries shall call for quality plans to be submitted by the suppliers alongwith their proposals. The quality plans called for from the vendors shall set out, during the various stages of manufacture and installation, the quality practices and procedures followed by the vendor's quality control organisation, the relevant reference documents/standards

used, acceptance level, inspection documentation raised, etc. Such quality plans of the successful vendor shall be discussed and finalised in consultation with the engineer and shall form a part of the purchase order/contract between the contractor and the vendor. Within 3 weeks of the release of the same purchase order/contracts for such bought out items/ components, a copy of the same without price details but together with detailed purchase specifications, quality plans and delivery conditions shall be furnished to the engineer by the contractor.

4.6 PATENT RIGHTS AND ROYALTIES

4.6.1 Royalties and fees for patent covering materials, articles, apparatus, devices, equipment or processes used in the works shall be deemed to have been included in the contract price. The contractor shall satisfy all demands that may be made at any time for such royalties or fees and he alone shall be liable for any damages or claims for patent infringements and shall keep the owner indemnified in that regard. The contractor shall, at his own cost and expense, defend all suits or proceedings that may be instituted for alleged infringement of any patent involved in the works, and, in case of an award of damages, the contractor shall pay for such award. In the event of any suit or other proceedings instituted against the owner, the same shall be defended at the cost and expense of the contractor who shall also satisfy/comply and decree, order or award made against the owner. But it shall be understood that no such machine, plant, work, material or thing has been used by the owner for any purpose or any manner other than that for which they have been furnished and installed by the contractor and specified under these specifications. Final payment to the contractor by the owner will not be made while any such suit or claim remains unsettled. In the event any apparatus or equipment, or any matter thereof furnished by the contractor, is in such suit or proceedings held to constitute infringement, and its use is enjoined, the contractor shall, at his option and at his own expense, either procure for the owner, the right to continue use of said apparatus, equipment or part thereof, replace it with non-infringing apparatus or equipment or modify it, so it becomes non-infringing.

4.7 TIME - THE ESSENCE OF CONTRACT

4.7.1 The time and the date of completion of the works as stipulated in the contractor's proposal and accepted by the owner without or with modifications, if any and so incorporated in the award letter shall be deemed to be the essence of the contract. The contractor shall so organise his resources and perform his work as to complete it not later than the date agreed to.

4.7.2 The contractor shall submit a detailed PERT network within the time frame agreed above consisting of adequate number of activities covering various key phases of the works

such as design, procurement, manufacturing, shipment and field erection activities within fifteen (15) days after the date of acceptance of tender. This network shall also indicate the interface facilities to be provided by the owner and the dates by which such facilities are needed. Contractor shall discuss the network so submitted with the owner and the agreed network which may be in the form as submitted or in revised form in line with the outcome of discussions and shall form part of the contract to be signed within sixty (60) days from the date of letter of acceptance of notice of award of contract. During the performance of contract, if in the opinion of the engineer proper progress is not maintained suitable changes shall be made in the contractor's operations to ensure proper progress.

For the purpose of this detailed time and progress / PERT chart, the works shall be deemed to have commenced on the expiry of 30 days from the issue of letter of acceptance or 7 (Seven) days after handing over the site of work, whichever is later.

- 4.7.3 The above PERT network shall be reviewed and periodic review reports shall be submitted by the contractor as directed by the engineer.
- 4.7.4 Subsequent to the award of the contract, the contractor shall make available to the engineer, a detailed manufacturing programme, in line with the agreed contract network. Such manufacturing programme shall be reviewed, updated and submitted to the Engineer, once every two month thereafter.

4.8 CONTRACT PRICE

- 4.8.1 The lump sum prices quoted by the contractor in his bid with additions and deletions as may be agreed before signing of the contract, for the entire scope of the work including furnishing and erection of equipment covered under the specifications and documents and shall be treated as the contract price.

4.9 CHANGED QUANTITY

- 4.9.1 The owner reserves the right to vary the quantities of items or groups of items to be ordered as specified in the accompanying technical specifications, as may be necessary, during the execution of the contract, but such variations unless otherwise specified in the accompanying technical specifications shall be limited to plus or minus twenty percent (20%) of the original quantity ordered.

4.10 DEDUCTIONS FROM CONTRACT PRICE

- 4.10.1 All costs, damages or expenses which the owner may have paid, for which under the contract the contractor is liable, will be claimed by the owner. All such claims shall be

billed by the owner to the contractor regularly as and when they fall due. Such bills shall be supported by appropriate and certified vouchers or explanations, to enable the contractor to properly identify such claims. Such claims shall be paid by the contractor within fifteen (15) days of the receipt of the corresponding bills and if not paid by the contractor within the said period, the owner may then deduct the amount, from any moneys due or becoming due by him to the contractor under the contract or may be recovered by actions of law or otherwise, if the contractor fails to satisfy the owner of such claims.

4.11 CONTRACT PRICE ADJUSTMENT

- 4.11.1 All adjustments in the contract price shall be computed in accordance with the conditions and formulae prescribed in the relevant clauses of 'Additional Terms and Conditions of Contract', the accompanying technical specifications and further satisfying the requirements specified herein.
- 4.11.2 The contract price stated in the contract agreement is the base price. A certain fixed percentage of the base price as indicated in the technical specifications shall not be subject to any price adjustment. The balance percentage viz. the cost portion shall only be subject to price adjustment.
- 4.11.3 Price adjustment shall be applicable to the cost portion, only if changes in the cost of labour and materials (either increases or decreases) occur during the contract period, directly affecting the cost portion.
- 4.11.4 Variations in the cost of materials shall be determined by comparing published material indices as on the last date of submission of bid (inclusive of price part) or the revised price bid, whichever is later, with the same indices published during the manufacture at the respective cut off periods for material as specified in clause 4.47 of Additional Terms and Conditions of Contract. Variations in the cost of labour shall be determined by comparing the wages as per the Minimum Wages Act/ Rules of the State or Central Government, whichever is more, applicable to the place of work as on the last date of submission of bid (inclusive of price part) or the revised price bid, whichever is later, with the same wages as per the Minimum Wages Act/ Rules of the State or Central Government, whichever is more, during the work/ manufacture applicable to the place of work/ manufacture at the respective cut off periods for labour as specified in clause 4.47 of Additional Terms and Conditions of Contract of this volume.
- 4.11.5 The total computed variation in the contract price shall be restricted to a limiting percentage as specified in clause 4.47.8 of Additional Terms and Conditions of Contract of this volume.

4.11.6 The price adjustment for the erection shall be made on the value of erection work done as indicated in each billing.

4.11.7 Every three months after the award of contract, and a month prior to shipment of equipment (in the case of ex-factory price component of contract price), and every month after establishing his site office (in the case of erection) the contractor shall submit to the engineer a written notice of the changes, if any, that have occurred in the specified material and labour indices during the previous reporting period containing the effective date of such change, the amount of change, the amount of contract price adjustment and documentary evidence to substantiate the price adjustment.

4.11.8 The contract price adjustment provisions detailed above, shall only be applicable if so specified in the Additional Terms and Conditions of Contract.

4.12 PACKING, FORWARDING AND SHIPMENT

4.12.1 The contractor, wherever applicable, shall after proper painting, pack and crate all equipment in such a manner as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till the time of erection. The contractor shall be held responsible for all damages due to improper packing.

4.12.2 The contractor shall notify the owner of the date of each shipment from his works, and the expected date of arrival at the site for the information of the owner.

4.12.3 The contractor shall also give all shipping information concerning the weight, size and content of each packing including any other information the owner may require.

4.12.4 The following documents shall be sent by registered post to the owner within 3 days from the date of shipment, to enable the owner to make progressive payments to the contractor: The payment shall be made only after receipt and acceptance of material at site in good condition.

Application for payment in the standard format of the owner (3 copies),

Invoice (6 copies)

Packing list (6 copies)

Pre-despatch clearance certificate, if any (3 copies)

Test certificate, wherever applicable (3 copies)

4.12.5 The contractor shall prepare detailed packing list of all packages and containers, bundles and loose material forming each and every consignment dispatched to site. The contractor shall further be responsible for making all necessary arrangements for loading, unloading and other handling right from his works upto the site and also till the equipment is erected,

tested and commissioned. He shall be solely responsible for proper storage and safe custody of all equipment.

4.13 DEMURRAGE, WHARFAGE, ETC.

4.13.1 All demurrage, wharfage and other expenses incurred due to delayed clearance of the material or any other reason shall be to the account of the contractor.

4.14 INSURANCE

4.14.1 The contractor shall arrange, secure and maintain insurance as may be necessary and for all such amounts to protect his interests and the interests of the owner, against all risks as detailed herein in the joint names of the Owner and the Contractor with the condition that payments against all claims shall be payable by insurers to the owner as elaborated at clause 4.14.5. All premiums and other charges of the said insurance policies shall be paid by the contractor. The form and the limit of such insurance, as defined herein together with the under -writer thereof in each case shall be acceptable to the owner. However, irrespective of such acceptance, the responsibility to maintain adequate insurance coverage on comprehensive all risks basis at all time during the period of contract shall be that of the contractor alone.

The contractor's failure in this regard shall not relieve him of any of his contractual responsibilities and obligations.

4.14.2 Any loss of damage to the equipment, during handling, transporting, storage and erection, till such time the plant is taken over by the owner, shall be to the account of the contractor. The contractor shall be responsible for preferring of all claims and make good for the damage or loss by way of repairs and/or replacement of the portion of the works damaged or lost. The transfer of title shall not in any way relieve the contractor of the above responsibilities during the period of the contract. The contractor shall provide the owner with a copy of all insurance policies and documents taken out by him in pursuance of the contract. Such copies of document shall be submitted to the owner immediately after such insurance coverage. The contractor shall also inform the owner in writing at least sixty (60) days in advance, regarding the expiry, cancellation and/or change in any of such documents and ensure revalidation/renewal, etc. as may be necessary well in time.

4.14.3 The risk that are to be covered under the insurance shall include, but not be limited to, the loss or damage in transit, theft, pilferage, riot, civil commotion, weather conditions, accidents of all kinds, fire, etc.

The scope of such insurance shall cover the entire value of the works from time to time.

4.14.4 All costs on account of insurance liabilities covered under the contract will be on contractor's account and will be included in contract price. However, the owner may from time to time, during the pendency of the contract, ask the contractor in writing to limit

the insurance coverage risks and in such a case, the parties to the contract will agree for a mutual settlement for reduction in contract price to the extent of reduced premium amounts.

4.14.5 All insurance claims, payable by the insurers, shall be paid to the Owner which shall be released to the contractor in installments as may be certified by the Engineer-in-charge for the purpose of rebuilding or replacement or repair of the works and/or goods destroyed or damaged for which payment was received from the insurers.

4.14.6 The clause entitled insurance under the section erection terms and conditions of contract of this volume, covers the additional insurance requirements for the portion of the works to be performed at the site of work.

4.15 LIABILITY FOR ACCIDENTS AND DAMAGES

4.15.1 Under the contract, the contractor shall be responsible for loss or damage to the plant until the plant is taken over in accordance with clause entitled 'Taking Over' in section technical terms and conditions of contract of this volume.

4.16 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

4.16.1 If the contractor fails to maintain the required progress in terms of the agreed time and progress chart or to complete the work and clear the site on or before the date of completion of contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the company on account of such breach, pay as compensation/ Liquidated Damages @ half percent (1/2%) of the contract price per week of delay. The aggregate of such compensation/ compensations shall not exceed 10 (ten) percent of the total value as shown in the contract.

This will also apply to items or group of items for which separate period of completion has been specified.

The amount of compensation may be adjusted or setoff against any sum payable to the contractor under this or any other contract with the company.

4.16.2 The company, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time of completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the company will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the contractor as agreed damages equivalent to half percent of the contract value of the works for each week or part of the week subject to a ceiling of 10% of the contract price.

4.16.3 The company, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

4.16.4 The company, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

4.16.5 In the event of such termination of the contract as described in clauses 4.16.2 or 4.16.3 or both, the company, shall be entitled to recover L.D. upto ten percent (10%) of the contract value and forfeit the security deposit made by the contractor besides getting the work completed by other means at the risk and cost of the contractor.

4.16.6 The company may waive the payment of compensation, depending upon merit of the case, on request received from the contractor if the entire work is completed within the date as specified in the contract or as validly extended without stipulating any penalty.

4.17 CONTRACTOR'S DEFAULT

4.17.1 If the contractor shall neglect to execute the works with the diligence and expedition or shall refuse or neglect to comply with any reasonable orders given to him, if writing by the engineer in connection with the works or shall contravene the provisions of the contract, the owner may give notice in writing to the contractor to make good the failure, neglect or contravention complained of. Should the contractor fail to comply with the notice within thirty (30) days from the date of service thereof, then and in such case the owner shall be at liberty to employ other workmen and forthwith execute such part of the works as the contractor may have neglected to do or if the owner shall think fit, it shall be lawful for him, without prejudice to any other right he may have under the contract, to take the works wholly or in part thereof and in that event the owner shall have free use of all contractor's equipment that may have been at the time on the site in connection with the works without being responsible to the contractor for fair wear and tear thereof and to the exclusion of any right of the contractor over the same, and the owner shall be entitled to retain and apply any balance which may otherwise be due on the contract by him to the contractor, or such part thereof as may be necessary, the payment of the cost of executing the said part of the works or of completing the works as the case may be. If the cost of completing the works or executing a part thereof as aforesaid shall exceed the balance due to the contractor, the contractor shall pay such excess. Such payment of excess amount shall be independent of the liquidated damages for delay which the contractor shall have to pay if the completion of works is delayed.

4.17.2 In addition, such action by the owner as aforesaid shall not relieve the contractor of his liability to pay liquidated damages for delay in completion of works as defined in clause 4.15.0 of this section

4.17.3 The termination of the contract under this clause shall not entitle the contractor to reduce the value of the performance bank guarantee nor the time thereof. The performance guarantee shall be valid for the full value and for the full period of the contract including guarantee period.

4.17.4 The bidding documents will clearly state that, if the contractor fails to complete the work and the order is cancelled, the amount due to him on account of work executed by him, if payable, shall be paid to him only after due recoveries as per the provisions of the contract and that too after alternative arrangements to complete the work has been made.

4.18 FORCE MAJEURE

4.18.1 Force majeure is herein defined as any cause which is beyond the control of the contractor or the owner as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the contract, such as:

(a) natural phenomena, including but not limited to floods, draughts, earthquakes and epidemics;

(b) acts of any government, including but not limited to war, declared or undeclared, priorities, quarantines, embargoes,

Provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes.

4.18.2 (a) The successful bidder / contractor will advise, in the event of his having resort to this clause by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the clause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition . In the event of delay lasting over two months, if arising out of Force Majeure, the contract may be terminated at the discretion of the company.

(b) For delays arising out of Force Majeure, the bidder/ contractor will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither company nor the bidder shall be liable to pay extra costs (like increase in rates, remobilisation advance, idle charges for labour and machinery etc.) Provided it is mutually established that the Force Majeure conditions did actually exist.

(c) If any of the Force Majeure conditions exists in the place of operation of the bidder even at the time of submission of bid he will categorically specify them in his bid and state whether they have been taken into consideration in their quotations.

4.18.3 The contractor or the owner shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and/or defined above. The date of completion will, subject to hereinafter provided, be extended by a reasonable time even though such cause may occur after contractor's performance of his obligations has been delayed for other causes.

4.19 DELAYS BY OWNER OR HIS AUTHORISED AGENT

4.19.1 In case the contractor's performance is delayed due to any act of omission on the part of the owner or his authorised agents, then the contractor shall be given due extension of time for the completion of the works, to the extent such omission on the part of the owner has caused delay in the contractor's performance of his work. Regarding reasonableness or otherwise of the extension of time, the decision of the engineer shall be final.

4.19.2 In addition, the contractor shall be entitled to claim demonstrable and reasonable compensation if such delays have resulted in any increase in the cost of work. The owner shall examine the justification for such a request for claim, and if satisfied, the extent of compensation shall be mutually agreed depending upon the circumstances at the time of such an occurrence

4.19.3 Any delay in finalisation of mutual agreement in regard to any of the contractor's claim/ compensation against any act of omission on the part of the owners or his authorised agents should not result in any work stoppage/ further delay on the part of the contractor.

4.20 EXTENSION OF DATE OF COMPLETION

4.20.1 On happening of any events causing delay as stated hereinafter, the contractor shall intimate immediately in writing the Engineer-in-charge :

- due to any reasons defined as Force Majeure.
- non-availability of stores which are the responsibility of the owner to supply
- non -availability or breakdown of tools and plant to be made available or made available by the owner
- delay on the part of the contractors or tradesmen engaged by the owner not forming part of the contract, holding up further progress of the work
- non-availability of working drawings/work programme in time, which are to be made available by the company during progress of the work
- any other causes which, at the sole discretion of the company is beyond the control of the contractor.

4.20.2 A "Hindrance Register" shall be maintained by both the Company and the Contractor at site to record the various hindrances, as mentioned above, encountered during the course of execution.

4.20.3 The contractor may request the company in writing for extension of time within 14 days of happening of such event causing delay stating also, if practicable, the period for which extension is desired. The company may, considering the eligibility of the request, give a fair and reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor in writing by the company through the Engineer-in-charge within 1 month of the date of receipt of such request. The contractor shall however use his best efforts to prevent or make good the delay by putting his endeavors constantly as may be reasonably required of him to the satisfaction of the Engineer-in-charge.

4.20.4 Provisional extension of time may also be granted by the Engineer -In-charge during the course of execution, on written request for extension of time within 15 (fifteen) days of happening of such events as stated above, reserving the company's right to impose/ waive liquidated damages at the time of granting final extension of time as per contract agreement.

4.20.5 When the period fixed for the completion of the contract is about to expire, the question of extension of the contract may be considered at the instance of the Contractor or the Company or the both. The extension will have to be by party's agreement, expressed or implied.

4.20.6 In case the Contractor does not apply for grant of extension of time within 15 (fifteen) days of hindrance occurring in execution of the work and the Company wants to continue with the work beyond the stipulated date of completion for reason of the work having been hindered, the Engineer-in-charge at his sole discretion can grant provisional extension of time even in the absence of application from the Contractor. Such extension of time granted by the Engineer-in-charge is valid provided the Contractor accepts the same either expressly or implied by his actions before and subsequent to the date of completion. Such extension of time shall be without prejudice to Company's right to levy compensation under the relevant clause of contract.

4.21 TERMINATION, SUSPENSION, CANCELLATION & FORECLOSURE OF CONTRACT

4.21.1 The owner shall, in addition to other remedial steps to be taken as provided in the conditions of contract, be entitled to cancel the contract in full or in part, if the contractor

- a. makes default in proceeding with the works with due diligence and continues to do so even after a notice in writing from the Engineer-in-charge, then on the expiry of the period as specified in the notice or
- b. commits default/breach in complying with any of the terms and conditions of the contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the Engineer-in-charge, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing or
- c. fails to complete the work or items of work with individual dates of completion, on or before the date/dates of completion or as extended by the company, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing or
- d. shall offer or give or agree to give any person in the service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for act/acts of favour in relation to the obtaining or execution of this or any other contract for the company. or
- e. Shall try to obtain a contract with the company by way of offering tendering or other non-bonafide method of competitive tendering or
- f. transfers, sublets, assigns the entire work or any portion thereof without the prior approval in writing from the Engineer-in-charge. The Engineer-in-charge may by giving a written notice, cancel the whole contract or portion of it in default.

4.21.2 The owner shall in such an event give fifteen (15) days notice in writing to the contractor of his decision to do so.

4.21.3 The contractor upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice, make all reasonable efforts to obtain cancellation of all orders and contracts to the extent they are related to the work terminated and terms satisfactory to the owner, stop all further subcontracting or purchasing activity related to the work terminated, and assist the owner in maintenance, protection, and disposition of the works acquired under the contract by the owner.

4.21.4 The contract shall stand terminated under the following circumstances unless the owner is satisfied that the legal representatives of the individual contractor or of the proprietor of the proprietary concern and in the case of partnership the surviving partners, are capable of carrying out and completing the contract and the owner shall in any way not be liable to payment of any compensation to the estate of deceased contractor and/or to the surviving partners of the contractor's firm on account of the termination of the contract.:

- a. If the contractor being an individual in the case of proprietary concern or in the case of a partnership firm any of its partners is declared insolvent under the provisions of insolvency act for the time being in force, or makes any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors amounting to proceedings for liquidation or composition under any insolvency act.
- b. In the case of the contractor being a company, its affairs are under liquidation either by a resolution passed by the company or by an order of court, not being a voluntary

liquidation proceedings for the purpose of amalgamation or reorganisation, or a receiver or manager is appointed by the court on the application by the debenture holders of the company, if any.

c. If the contractor shall suffer an execution being levied on his/their goods, estates and allow it to be continued for a period of 21 days.

d. On the death of the contractor being a proprietary concern or of any of the partners in the case of a partnership concern and the company is not satisfied that the legal representative of the deceased proprietor or the other surviving partners of the partnership concern are capable of carrying out and completing the contract. The decision of the company in this respect shall be final and binding which is to be intimated in writing to the legal representative or to the partnership concern.

4.21.5 If the contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the contractor is a partnership concern and one of the partners dies, then unless the owner is satisfied that the legal representatives of the individual contractor or of the proprietor of the proprietary concern and in the case of partnership the surviving partners, are capable of carrying out and completing the contract the owner shall be entitled to cancel the contract as to its incomplete part without being in any way liable to payment of any compensation to the estate of deceased contractor and/or to the surviving partners of the contractor's firm on account of the cancellation of the contract.

The decision of the owner that the legal representatives of the deceased contractor or surviving partners of the contractor's firm cannot carry out and complete the contract shall be final and binding on the parties. In the event of such cancellation the owner shall not hold the estate of the deceased contractor and/or the surviving partners of the estate of the deceased contractor and/or the surviving partners of the contractor's firm liable to damages for not completing the contract.

4.21.6 On cancellation of the contract or on termination of the contract, the Engineer-in-charge shall have powers

- a. to take possession of the site and any materials, constructional plant, implements, stores, etc. thereon.
- b. to carry out the incomplete work by any means at the risk of the contractor
- c. to determine the amount to be recovered from the contractor for completing the remaining work or in the event the remaining work is not to be completed the loss/damage suffered, if any, by the company after giving credit for the value of the work executed by the contractor upto the time of termination/cancellation less on a/c payments made till date and value of contractor's materials, plant, equipment, etc., taken possession of after termination/cancellation.
- d. to recover the amount determined as above, if any, from any moneys due to the contractor or any account or under any other contract and in the event of any shortfall, the contractor shall be called upon to pay the same on demand.

The need for determination of the amount of recovery of any extra cost/expenditure or of any loss/damage suffered by the company shall not however arise in the case of termination of the contract for death/demise of the contractor as stated in 4.20.4(d).

4.21.7 Suspension of work - The company shall have power to suspend the progress of the work or any part thereof and the Engineer-in-charge may direct the contractor in writing to suspend the work, for such period and in such manner as may be specified therein, on account of any default on the part of the contractor, or for proper execution of the work for reasons other than any default on the part of the contractor, or on ground of safety of the work or part thereof. In the event of suspension for reason other than any default on the part of the contractor, extension of time shall be allowed by the company equal to the period of such suspension. Any necessary and demonstrable costs incurred by the contractor as a result of such suspension of the works will be paid by the owner, provided such costs are substantiated to the satisfaction of the engineer. The owner shall not be responsible for any liabilities if suspension or delay is due to some default on the part of the contractor or his sub-contractor.

The work shall, throughout the stipulated period of contract, be carried out with all due diligence on the part of the contractor. In the event of termination or suspension of the contract, on account of default on the part of the contractor, as narrated hereinbefore, the security deposit and other dues of this work or any other work done under this company shall be forfeited and brought under the absolute disposal of the company provided, that the amount so forfeited shall not exceed 10% of the contract value.

4.21.8 Foreclosure of contract in full or in part - If at any time after acceptance of the tender, the company decides to abandon or reduce the scope of the work for any reason whatsoever the company, through its Engineer-in-charge, shall give notice in writing to that effect to the contractor. In the event of abandonment/reduction in the scope of work, the company shall be liable

- a. to pay the contractor at the contract rates full amount for works executed and measured at site upto the date of such abandonment/reduction in the work.
- b. to pay reasonable amount assessed and certified by the Engineer-in-charge of the expenditure incurred, if any, by the contractor on preliminary works at site. e.g. temporary access roads, temporary construction for labour and staff quarters, office accommodation, storage of materials, water storage tanks and supply for the work including supply to labour/staff quarters, office, etc.
- c. to pay for the materials brought to site or to be delivered at site, which the contractor is legally liable to pay, for the purpose of consumption in works carried out or were to be carried out but for the foreclosure, including the cost of purchase and transportation and cost of delivery of such materials. The materials to be taken over by the company should be in good condition and the company may allow at its discretion the contractor to retain

the materials in full or part if so desired by him and to be transported by the contractor from site to his place.

- d. to take back the materials issued by the company but remaining unused, if any, in the work on the date of abandonment/reduction in the work, at the original issued price less allowance for any deterioration or damage caused while in custody of the contractor
- e. to pay for the transportation of tools and plants of the contractor from site to contractor's place or to any other destination, whichever is less.

The contractor shall, if required by the Engineer -in-charge, furnish to him books of accounts, papers, relevant documents as may be necessary to enable the Engineer-in-charge to assess the amount payable in terms of para 4.20.8 (b), (c) and (e) above, the contractor shall not have any claim for compensation whatsoever either for abandonment or for reduction in the scope of work, other than those as specified above.

4.22 NO WAIVER OF RIGHTS

Neither the inspection by the owner or the engineer or any of their officials, employees or agents nor any order by the owner or the engineer for payment of money or any payment for or acceptance of, the whole or any part of the works by the owner or the engineer, nor any extension of time, nor any possession taken by the engineer shall operate as a waiver of any provision of the contract, or of any power herein reserved to the owner, or any right to damages herein provided, nor shall any waiver of any breach in the contract be held to be a waiver of any other or subsequent breach.

4.23 CERTIFICATE NOT TO AFFECT RIGHT OF OWNER AND LIABILITY OF CONTRACTOR

No interim payment certificate of the engineer, nor any sum paid on account, by the owner, nor any extension of time for execution of the works granted by the engineer shall affect or prejudice the rights of the owner against the contractor or relieve the contractor of his obligations for the due performance of the contract, or be interpreted as approval of the works done or of the equipment furnished and no certificate shall create liability for the owner to pay for alterations, amendments, variations or additional works not ordered, in writing, by the engineer or discharge the liability of the contractor for the payment of damages whether due, ascertained, or certified or not, or any sum against the payment of which he is bound to indemnify the owner, nor shall any such certificate nor the acceptance by him of any sum paid on account or otherwise affect or prejudice the rights of the contractor against the owner.

4.24 GRAFTS AND COMMISSIONS ETC.

Any graft, commission, gift or advantage given, promised or offered by or on behalf of the contractor or his partner, agent, officers, director, employee or servant or any one of his or their behalf in relation to the obtaining or to the execution of this or any other contract with the owner, shall, in addition to any criminal liability which it may incur, subject the contractor to the cancellation of this and all other contracts and also to payment of any loss or damage to the owner resulting from any cancellation. The owner shall then be entitled to deduct the amount so payable from any moneys otherwise due to the contractor under the contract.

4.25 LANGUAGE AND MEASURES

All documents pertaining to the contract including specifications, schedules notices, correspondence, operating and maintenance instructions, drawings or any other writing shall be written in English language.

The metric system of measurement shall be used exclusively in the contract.

4.26 RELEASE OF INFORMATION

The contractor shall not communicate or use in advertising, publicity, sales releases or in any other medium photographs or other reproduction of the works under this contract, or descriptions of the site, dimensions, quantity, quality or other information, concerning the works unless prior written permission has been obtained from the owner.

4.27 CONSTRUCTION OF THE CONTRACT

4.27.1 Notwithstanding anything stated elsewhere in the bid documents, the contract to be entered into will be treated as a divisible supply and erection contract. The supply portion of the contract will relate to the supply of equipment and materials and the erection portion will relate to the handling at the site, storage, erection, construction, testing, commissioning etc. as defined in the bid documents. The contractor will pay the sales tax for the supply of equipment and materials in accordance with law and the same will be reimbursed by the owner as a part of the total contract price on actual. The sales tax should be included in the total bid price in the proposal and should also be indicated separately.

4.27.2 In case of divisible supply and erection contract, or where the owner hands over his equipment to the contractor for executing, then the contractor shall at the time of taking delivery of the equipment/ dispatch documents be required to execute an indemnity bond in favour of the owner in the form acceptable to the owner for keeping the equipment in safe custody and to utilise the same exclusively for the purposes of the said contract.

4.27.3 The contract shall in all respects be construed and governed accordingly to Indian Laws.

4.27.4 It is clearly understood that the total consideration for the contract (s) has been broken up into various components only for the convenience of payment of advance under the contract (s) and for the measurement of deviations or modifications under the contract (s).

4.28 COMPLETION OF CONTRACT

Unless otherwise terminated under the provisions of any other relevant clause, this contract shall be deemed to have been completed at the expiration of the guarantee period as provided for under the clause entitled 'Guarantee' in this section.

4.29 ENFORCEMENT OF TERMS

The failure of either party to enforce at any time of the provisions of this contract or any rights in respect thereto or to exercise any option herein provided, shall in no way be construed to be a waiver of such provisions, rights or options or in any way to affect the validity of the contract. The exercise by either party of any of its rights herein shall not preclude or prejudice either party from exercising the same or any other right it may have hereunder.

4.30 ENGINEER'S DECISION

4.30.1 In respect of all matters which are left to the decision of the engineer including the granting or withholding of the certificates, the engineer shall, if required to do so by the contractor give in writing a decision thereon.

4.30.2 If in the opinion of the contractor, a decision made by the engineer is not in accordance with the meaning and intent of the contract, the contractor may file with the engineer within fifteen (15) days after receipt of the decision, a written objection to the decision. Failure to file an objection within the allotted time will be considered as acceptance of the engineer's decision and the decision shall become final and binding.

4.30.3 The engineer's decision and the filing of the written objection thereto shall be a condition precedent to the right to any legal proceedings. It is the intent of the agreement that there shall be no delay in the execution of the works and the decision of the engineer as rendered shall be promptly observed.

4.31 CO-OPERATION WITH OTHER CONTRACTORS AND CONSULTING ENGINEERS

The contractor shall agree to co-operate with the owner's other contractors and consulting engineers and freely exchange with them such technical information as is necessary to obtain the most efficient and economical design and to avoid unnecessary duplication of efforts. The engineer shall be provided with three copies of all correspondence addressed

by the contractor to other sub-contractors and consulting engineers in respect of such exchange of technical information,

4.32 TRAINING OF OWNER'S PERSONNEL

- 4.32.1 The contractor shall undertake to train free of cost, engineering personnel selected and sent by the owner at the works of the contractor unless otherwise specified in the technical specifications. The period and the nature of training for the individual personnel shall be agreed upon mutually between the contractor and the owner. These engineering personnel shall be given special training in the shops, where the equipment will be manufactured and/or their collaborator's works and where possible, in any other plant where equipment manufactured by the contractor or his collaborator is under installation or test, to enable those personnel to become familiar with the equipment being furnished by the contractor.
- 4.32.2 All traveling and living expenses for the engineering personnel to be trained during the total period of training will be borne by the owner. These engineering personnel while undergoing training shall be responsible to the contractor for discipline.
- 4.32.3 In the event of the owner, for any reason, failing to avail of the training facilities, he shall not be entitled for any rebate whatsoever on this account.

4.33 POWER TO VARY OR OMIT WORK

- 4.33.1 No alterations, amendments, omissions, suspensions or variations of the works (hereinafter referred to as 'Variation') under the contract as detailed in the contract documents, shall be made by the contractor except as directed in writing by the engineer, but the engineer shall have full power subject to the provision hereinafter contained from time to time during the execution of the contract, by notice in writing, to instruct the contractor to make such variation without prejudice to the contract. The contractor shall carry out such variation and be bound by the same conditions as far as applicable as though the said variation occurred in the contract documents. If any suggested variation would, in the opinion of the contractor, if carried out, prevent him from fulfilling any of his obligations or guarantees under the contract, he shall notify the engineer thereof in writing and the engineer shall decide forthwith, whether or not the same shall be carried out and if the engineer confirms his instructions, contractor's obligations and guarantees shall be modified to such an extent as may be mutually agreed. Any agreed difference in cost occasioned by any such variation shall be added to or deducted from the contract price as the case may be.
- 4.33.2 In the event of the engineer requiring any variation, such reasonable and proper notice shall be given to the contractor to enable him to work his arrangements accordingly, and in cases where goods or materials are already prepared or any design, drawings or pattern made or work done requires to be altered, a reasonable and agreed sum in respect thereof shall be paid to the contractor.

- 4.33.3 In any case in which the contractor has received instructions from the engineer as to the requirement of carrying out the altered or additional substituted work which either then or later on, will in the opinion of the contractor, involve a claim for additional payments, the contractor shall immediately and in no case later than thirty (30) days, after receipt of the instructions aforesaid and before carrying out the instructions, advise the engineer to that effect. But the engineer shall not become liable for the payment of any charges in respect of any such variations, unless the instructions for the performance of the same shall be confirmed in writing by the engineer.
- 4.33.4 If any variation in the works, results in reduction of contract price, the parties shall, agree, in writing, so to the extent of any change in the price, before in contractor proceeds with the change. 4.33.5 in all the above cases, in the event of a disagreement as to the reasonableness of the said sum, the decision of the engineer shall prevail.
- 4.33.5 Notwithstanding anything stated above in this clause, the engineer shall have the full power to instruct the contractor, in writing, during the execution of the contract, to vary to quantities of the items or groups of items. The contractor shall carry out such variations and be bound by the same conditions, as though the said variations occurred in the contract documents. However, the contract price shall be adjusted at the rates and the prices provided for the original quantities in the contract.

4.34 GUARANTEE

- 4.34.1 The contractor shall warrant that the equipment will be new and in accordance with the contract documents and be free from defects in material and workmanship for a period of twelve (12) calendar months commencing immediately upon the satisfactory completion of the trial operations. The contractor's liability shall be limited to the replacement of any defective parts in the equipment of his own manufacture or those of his sub-contractors, under normal use and arising solely from faulty design, materials, and/or workmanship provided always that such defective parts are repairable at the site and are not in the meantime essential in the commercial use of the plant. Such replaced defective parts shall be returned to the contractor unless otherwise arranged. No repairs or replacements shall normally be carried out by the engineer when the plant is under the supervision of the contractor's supervisory engineers.

4.35 REPLACEMENT OF DEFECTIVE PARTS AND MATERIALS

- 4.35.1 If during the progress of the works the engineer shall decide and inform in writing to the contractor, that the contractor has manufactured any plant or part of the plant unsound or imperfect or has furnished any plant inferior than the quality specified, the contractor on receiving details of such defects or deficiencies shall at his own expense within seven (7) days of his receiving the notice, or otherwise, within such time as may be reasonably necessary for making it good, proceed to alter, re-construct or remove such work and furnish fresh equipment upto the standards of the specifications. In case the contractor

fails to do so, the engineer may on giving the contractor seven (7) days' notice in writing of his intentions to do so, proceed to remove the portion of the works so complained of and, at the cost of the contractor, perform all such work or furnish all such equipment provided that nothing in this clause shall be deemed to deprive the owner of or affect any rights under the contract which the owner may otherwise have in respect of such defects and deficiencies.

4.35.2 The contractor's full and extreme liability under this clause shall be satisfied by the payments to the owner of the extra cost, of such replacement procured, including erection, as provided for in the contract, such extra cost being the ascertained difference between the price paid by the owner for such replacements and the contract price portion for such defective plant and repayments of any sum paid by the owner to the contractor in respect of such defective plant. Should the owner not so replace the defective plant, the contractor's extreme liability under this clause shall be limited to repayment of all sums paid by the owner under the contract for such defective plant. If any action in court is brought against the owner or engineer or an officer or agent of the owner. For the failure or neglect on the part of the contractor to perform any acts, matters, covenants or things under the contract, or for damage or injury caused by the alleged omission or negligence on the part of the contractor, his agents, representatives or his sub-contractors, workmen, suppliers or employees, the contractor shall in all such cases indemnify and keep the owner, and the engineer and/or his representative, harmless from all losses, damages, expenses or decrees arising of such action.

4.36 LIMITATIONS OF LIABILITIES

The final payment by the owner in pursuance of the contract shall mean, the release of the contractor from all his liabilities under the contract. Such final payment shall be made only at the end of the guarantee period as detailed in clause 4.34 above and till such time as the contractual liabilities and responsibilities of the contractor, shall prevail. All other payments made under the contract shall be treated as on account payments.

4.37 MARGINAL NOTES

The marginal notes to any clause of the contract shall not affect or control the construction of such clause.

4.38 TAXES, PERMITS & LICENCES

The contractor shall be liable and pay all- Indian taxes, (other than service tax) duties, levies, royalties, whether local, municipal, provincial or central lawfully assessed against the owner or the contractor in pursuance of the contract. In addition the contractor shall be responsible for payment of all Indian duties, levies and taxes lawfully assessed against

the contractor for his personal income and property only. This clause shall be read in conjunction with relevant clauses deliberated NIT / Instruction to Bidders.

4.39 PROGRESS REPORTS AND PHOTOGRAPHS

During the various stages of the works in the pursuance of the contract, the contractor shall at his own cost submit periodic progress reports as may be reasonably required by the engineer with such materials as charts, net-works, photographs, test certificates, etc. such progress report shall be in the form and size as may be required by the engineer and shall be submitted in at least three (3) copies.

4.40 LONG TERM AVAILABILITY OF SPARES

- 4.40.1 The contractor shall guarantee the long term availability of spares to the owner for the full life of the equipments covered under the contract. The contractor shall guarantee that before going out of production of spare parts of the equipment covered under the contract, he shall give the owner at least twelve (12) months advance notice so that the latter may order his bulk requirement of spares, if he so desires. The same provision will also be applicable to sub-contractor. Further, in case of discontinuance of manufacture of any spares by the contractor or his sub-contractors the contractor will provide the owner two years in advance, with full manufacturing drawings, material specifications and technical information required by the owner for the purpose of manufacture of such items.
- 4.40.2 Further, in case of discontinuance of supply of spares by the contractor or his sub-contractors the contractor will provide the owner with full information for replacement of such spares with other equivalent makes, if so required by the owner.
- 4.40.3 The contractor shall provide the owner with a "directory" of his sub -contractors giving the addresses and other particulars of his sub-contractors. The owner, if he so desires, shall have the right to procure the spares directly from sub -contractors.
- 4.40.4 Notwithstanding anything stated elsewhere in the bid documents, the prices of all spares which may be procured to cover long term requirements beyond the 2 years' maintenance and operational requirements will be generally in accordance with the mutually agreed prices.
- 4.40.5 The contractor will indicate in advance the delivery period of the items of spares, which the owner may procure in accordance with the sub-clause 4.40. In case of emergency requirements of spares, the contractor would make every effort to expedite the manufacture and delivery of such spares on the basis of mutually agreed time schedule.

4.40.6 The procedure specified in clause 4.40.4 and 4.40.5 shall apply for future procurement of items included in stand by spare list, mandatory spares lists, optional spares list and special tools, plants and equipment list, if any, specified in the bid documents.

4.40.7 The Contractor shall indemnify the owner for the availability of long time spares as per the terms and conditions laid down above in clause 4.40.1 to clause 4.40.6.

4.41 PAYMENT

4.41.1 The payment to the contractor for the performance of the works under the contract will be made by the owner as per the guidelines and conditions specified herein. All payment made during the contract shall be on account payments only. The final payment will be made on completion of all the works and on fulfillment by the contractor of all his liabilities under the contract.

4.41.2 CURRENCY OF PAYMENT

All payments under the contract shall be in Indian Rupees only.

4.41.3 DUE DATES FOR PAYMENT

Owner will make progressive payment as and when the payment is due as per the terms of payment set forth in the accompanying technical specifications. Payment will become due and payable by the owner within thirty (30) days from the date of receipt of contractor's bill/invoice/debit note by the owner, provided the documents submitted are complete in all respects.

4.41.4 PAYMENT SCHEDULE

The contractor shall prepare and submit to the engineer for approval, a break-up of the contract price. This contract price break-up shall be interlinked with the agreed detailed PERT network of the contractor setting forth his starting and completion dates for the various key phases of works prepared as per condition of this section. While preparing the PERT network, the supply of P&M equipment shall be linked to construction of respective Civil and Structural work. Any payment under the contract shall be made only after the contractor's price break-up is approved by the engineer. The aggregate sum of the contractor's price break-up shall be equal to the lump sum contract price.

4.42 INTERIM PAYMENTS

4.42.1 The contractor shall submit running bill for the payment in the prescribed proforma of the owner to be supplied in due course at the time of payment.

4.42.2 Each such running bill shall state the amount claimed and shall set forth in detail, in the order of the payment schedule, particulars of the works including the works executed at site and of the equipment shipped/brought on to the site pursuant to the contract upto the date mentioned in the bill and for the period covered since the last preceding certificate, if any.

4.42.3 Every interim payment claimed shall indicate the contract value of the works executed upto the date mentioned in the running bill, provided that no sum shall be included in any running bill in respect of the works that, according to the decision of the engineer, does not comply with the contract, or has been performed, at the date of certificate prematurely.

4.43 TERMS OF PAYMENTS

4.43.1 Payment: Since the total job is on turn-key basis, any payment to the contractor before the final payment shall be treated as provisional payment towards the total contract value. The contractor may at intervals of not less than one month submit claims/ bills for payment on account of work done after proper scrutiny and certification of the same by the Employer. The progressive payment shall be made in respect of the following:

- a) Design engineering
- b) Civil construction including foundation and buildings
- c) Structural fabrication and erection
- d) Supply of equipment
- e) Machinery Erection
- f) Trial run and commissioning.

All such payments shall be made by the Employer online/ through Account Payee Cheque within a month from the date of the submission of claims/ bills. Payment will also be governed by Clauses of 4.3 of General Terms & Conditions of the Contract. Any sum due from the contractor shall be deducted from the first or next subsequent on account of payments as the case may be, in general the following procedure of payment shall be followed.

4.43.1.1 Design and Engineering.

- a) 90 % payment on completion of approval of system, mechanical, electrical, civil, structural design, drawings etc. as per contract on pro- rata basis.
- b) 5 % payment on Preliminary acceptance of the works after start-up and trial operation as per clause 4.61 of General Technical Conditions.

c) 5 % on issue of final acceptance certificate of the works after performance and guarantee test as per clause 4.61 of General Technical Conditions.

4.43.1.2 Civil/Structural Works:

- a) 90 % payment on progress of work completed, duly measured and certified by the engineer.
- b) 5 % payment on preliminary acceptance of the works after start-up and trial operation as per clause 4.61 of General Technical Conditions.
- c) 5 % on issue of final acceptance certificate of the works after performance and guarantee test as per clause 4.61 of General Technical Conditions.

4.43.1.3 Supply of Equipment:

- a) 85 % payment on receipt of the equipment conforming to stipulated specifications and quality in good condition at site to be certified by the site engineer.
- b) 7.5% on preliminary acceptance of the works after start-up and trial operation as per clause 4.61 of General Technical Conditions.
- c) 7.5% on issue of final acceptance certificate of the works after performance and guarantee test as per clause 4.61 of General Technical Conditions.

4.43.1.4 Installation & Commissioning:

- a) 85% progress payment based on the installation and commissioning of plant and equipment duly certified by site engineer.
- b) 7.5% payment on preliminary acceptance of the works after start-up and trial operation as per clause 4.61 of General Technical Conditions.
- c) 7.5% on issue of final acceptance certificate of the works after performance and guarantee test as per clause 4.61 of General Technical Conditions

4.43.1.5 Final Bill:

As soon as possible after completion of the works to the satisfaction of the Employer the Contractor shall forward a certified final bill. It shall be accompanied by all relevant vouchers, such as royalty clearance certificate (if any) from appropriate authorities, submission of copies of working drawings, technical documents as required documents showing therein all additions and alterations etc. in the process of execution, completion certificate for embedded and covered up works, plant handing over certificate etc. as applicable. The Contractor shall be paid full and final payment only after deduction of amounts paid against on account bill and any other amount due etc. payable by Contractor.

4.44 SETTLEMENT OF DISPUTES

It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level.

The contractor should make request in writing to the Engineer-in-charge for settlement of such disputes/ claims within 30 (thirty) days of arising of the cause of dispute/ claim failing which no disputes/ claims of the contractor shall be entertained by the company.

Effort shall be made to resolve the dispute in two stages

In first stage dispute shall be referred to Area CGM, GM. If difference still persist the dispute shall be referred to a committee constituted by the owner. The committee shall have one member of the rank of Director of the company who shall be chairman of the committee.

If differences still persist, the settlement of the dispute shall be resolved in the following manner: Disputes relating to the commercial contracts with Central Public Sector Enterprises / Govt. Departments (except Railways, Income Tax, Customs & excise duties)/ State Public Sector Enterprises shall be referred by either party for Arbitration to the PMA (Permanent Machinery of Arbitration) in the department of Public Enterprises.

In case of parties other than Govt. Agencies, the redressal of the dispute may be sought in the Court of Law.

4.45 SERVICE , SALES TAX, IF ANY, ON WORKS CONTRACTS

All taxes, levies, cess, royalties, whether local, municipal, provincial or central pertaining to the contract are payable during the entire periods of contract, shall be to the contractor/ contractors account and shall be deemed to have been included in the contracted rate for the work to be executed by the contractor. The Company shall not be liable for any taxes or levies etc. whatsoever in connection with this contract.

The company reserves the right to deduct/ withhold any amount towards taxes, levies, etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any Statutory authority and the company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

4B. ADDITIONAL TERMS & CONDITIONS OF CONTRACT

The following additional terms & conditions are also acceptable to the company. The tenderers are requested not to quote any additional conditions in their tender.

4.46. MOBILISATION ADVANCE : **NOT APPLICABLE IN THIS CASE**

- i) ~~In the case of works whose estimated value is more than Rs.100.00 lakhs, a maximum of 10% of the total contract value of work will be paid as mobilization advance subject to submission of Bank Guarantee for 110% advance amount.~~
- ii) ~~Mobilization Advance against survey, soil investigation, design & engineering will be paid in two equal installments - one after signing of the agreement and the second after the system design drawings have been completed and detailed design work is to be taken up by the contractor.~~
- iii) ~~Mobilization Advance against supply of equipments shall be released only after the contractor has finalized their vendors/suppliers for the specific equipment and the amount of advance shall be proportionate to the value of equipment for which vendors/suppliers have been finalized vis à vis the total value of equipments offered in the contract limited to 10% of the contract value.~~
- iv) ~~Mobilisation Advance against works contract for site activities shall be paid in two equal installments. First installment shall be paid after the contractor has opened their site office and having finalised their subcontractors. The second installment shall be paid for taking procurement action of construction materials like reinforcing steel and structural steel by the contractor.~~
- v) ~~The mobilisation advance shall be recovered from the bills of the contractor from the second running on account bills onward @ 20% of the advance amount paid.~~
- vi) ~~The value of Bank Guarantee may be reduced to the extent such advance is recovered by the company subject to the conditions that the value of Bank Guarantee amount at any time is more than the recoverable outstanding advance. Bank Guarantee shall be irrevocable and from a Nationalised Bank /Scheduled Bank.~~
- vii) ~~Interest on mobilisation advance will be charged as per the rate of CIL's borrowing rate under cash credit arrangement as varying from time to time.~~

4.47 PRICE VARIATION CLAUSE:

- 4.47.1 The contract price shall remain firm without any price variation due to escalation for the portions of survey, geo-engineering investigations, design and engineering and supply of equipments, plant and machineries as envisaged in the scope of work and the price agreed

thereon as per the contract except the statutory increase/decrease in taxes and duties such as excise duty, sales tax, import duty etc.

4.47.2 If the contract is to be extended beyond the stipulated period for completion of the work due to fault on the part of the contractor escalation on prices should not be allowed further if not provided otherwise in the accepted contract.

4.47.3 For the portions of civil and structural works and erection and commissioning works of the plant & machineries, the price variation due to escalation shall be allowed to the extent as detailed hereinafter.

If the prices of materials (not being materials supplied at fixed issue rates by the company) and wages of labour, required for execution of the work, increase, the contractor shall be compensated for such increase as per provisions detailed below:

- a) The amount of the contract shall accordingly be varied, subject to the condition that such compensation for variation in prices shall be available only for the work done during the stipulated period of the contract as per the work programme agreed including such period for which the contract is validly extended under the provisions of the contract without any penal action.
- b) The base date for working out such price variation shall be as on the last date of submission of bid (inclusive of price part) or the revised price bid (inclusive of revised offer if any) whichever is later.
- c) The compensation of Price variation shall be worked out at quarterly intervals and shall be with respect to the cost of work done during the previous three months. The first such payment shall be made at the end of three months after the month (Excluding) in which the tender was accepted and thereafter at three months' interval.

4.47.4 PRICE VARIATION FOR LABOUR:

The amount paid to the contractor for the work done shall be adjusted for increase or decrease in the cost of labour and the cost shall be calculated quarterly in accordance with the following formula:

$$V L = W \times A \times \frac{(L - L_0)}{100}$$

Where :

V L = Variation in labour cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Value of work done during the period under reckoning to which the price variation relates as indicated in clause no. 4.47.7 of the 'ADDITIONAL TERMS & CONDITIONS OF CONTRACT'.

A = Component of labour expressed as percentage of the total value of work adopted from Table-1

Lo= Minimum wages for unskilled workers payable as per the Minimum Wages Act / Rules of the State or Central Government , whichever is more , applicable to the place of work as on the last date stipulated for receipt of the Price bids or Revised Price bids whichever is later.

L = Revised minimum wages of unskilled workers corresponding to Lo during the period to which the escalation relates.

4.47.5 Price Variation on Materials:

The amount to be paid to the contractor for the work done shall be adjusted for increase or decrease in the cost of materials and the cost shall be calculated quarterly in accordance with the following formula:

$$Vm = \frac{W \times B \times (M - Mo)}{100}$$

Where :

Vm = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Value of work done during the period under reckoning to which the price variation relates as indicated in clause no. 4.47.7 of the 'ADDITIONAL TERMS & CONDITIONS OF CONTRACT'.

B = Component of material expressed as percentage of the total value of work adopted from Table-1

M = Average All India Wholesale Price Index for all commodities for the period to which price variation relates as published by the RBI Bulletin , Ministry of Industry & Commerce , Govt. Of India.

Mo = All India Wholesale Price Index for all commodities as published by the RBI Bulletin , Ministry of Industry & Commerce , Govt. Of India, relating to the last date on which the price bids or revised price bids whichever is later were stipulated to be received.

4.47.6 PRICE VARIATION ON POL:

The amount to be paid to the contractor for the work done shall be adjusted for increase or decrease in the cost of POL and the cost shall be calculated quarterly in accordance with the following formula:

$$Vf = \frac{W \times C \times (F - Fo)}{100}$$

Where :

Vf = Variation in the cost of fuel, oil & lubricants increase or decrease in the amount in rupees to be paid or recovered.

W = Value of work done during the period under reckoning to which the price variation relates as indicated in clause no. 4.47.7 of the 'ADDITIONAL TERMS & CONDITIONS OF CONTRACT'.

C = Component of POL expressed as percentage of total value of work adopted from Table-1

F = Average Index Number for Wholesale Price for the group of "Fuel, power, light and lubricants" as published by the Economic Advisor, Ministry of Industry, Govt. of India for the period to which escalation/ de-escalation relates.

Fo = Index Number for Wholesale Price for the group of "Fuel, power, light and lubricants" as published by the Economic Advisor, Ministry of Industry, Govt. of India prevalent on the last date of receipt of price bids or revised price bids whichever is later.

4.47.7 WHILE CALCULATING THE VALUE OF "W" THE FOLLOWING MAY BE NOTED. :

The cost on which the escalation/price variation shall be payable shall be reckoned as 85% of the cost of work as per the bills to which escalation relates, and from this amount the value of materials supplied or services rendered at the prescribed charges under the relevant provisions of the contract, and proposed to be recovered in the particular bill, shall be deducted before the amount of compensation for escalation/price variation is worked out. Further the cost shall not include any work for which payment is made at prevailing market rates.

In the event the price of materials and/ or wages of labour required for execution of the work decreases, there shall be downward adjustment of the work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formulae hereinbefore stated under this clause shall mutatis /mutandis apply.

The price variation clause as stated above will be applied for extended time frame of a contract by following the principles as under

i) Normally, if and when it is understood that a contract is not going to be completed within the scheduled time period, the contract is kept operative by extending the time of completion provisionally. During this provisional extended period the operation of the Price Variation Clause will remain suspended.

ii) If and when it is decided at the end of the successful completion of the work that the delay was due to causes not attributable to the contractor, then the Price Variation Clause will be revived and applied as if the scheduled date of completion has been shifted to the approved extended date.

iii) If it is decided at the end of successful completion of the work that the delay was due to the fault of the contractor then the Price Variation Clause will not be revived and

no payment will be made to the contractor on this account. Additionally the Clause related to Compensation for delay will be applied.

iv) In some cases the total delay may be partially due to causes not attributable to the contractor and partially due to his fault. It may be difficult to exactly quantify the total delay proportionately in such cases. The Price Variation Clause under such condition will be made operative for the entire extended time period by freezing the relevant indices on the date of the scheduled date of completion as originally fixed in the contract/agreement. At the same time the Clause related to the compensation for delay will also be applied.

Table-1

Value of A, B & C in the escalation formula in the additional terms & conditions for Civil Works :

Sl. No.	Particulars	A% Labour Component	B% Material Component	C% POL Component	Remarks
1	For Building works	25	75	NIL	
2	For road works	15	80	05	
3	For external sewerage, external water supply and external electrification	10	90	NIL	
4	For external water supply, external sanitary and external electrification (Through Labour Rate contract)	75	25	NIL	
5	For steel structural works	15	85	NIL	
6	For steel structural works with Deptt. Free supply of rolled steel sections (Through Labour Rate contract)	75	25	NIL	
7	For Coal Handling Plant civil works	25	75	NIL	
8	For Underground civil works such as inclined driveage, shaft sinking etc.	35	65	NIL	
9	For erection and Commissioning of P & M	65	35	NIL	
10	Annual maintenance(Labour oriented)	100	-	NIL	

4.47.8 CEILING ON PRICE VARIATION DUE TO ESCALATION

There shall be a ceiling on price variation due to escalation covered under clauses mentioned hereinbefore on the whole contract, limited to 10% of the 'Contract Price' only.

4.47.9 VARIATION IN THE TAXES, DUTIES, LEVIES ETC.

Other statutory variation due to increase in taxes, duties, levies etc. by Govt. (Central or State or Local) as of thirty (30) days prior to the date of opening of the bid or the revised price bid, whichever is later, with the taxes, duties, levies etc. during the manufacture/works/supply, as the case may be, shall be born by the owner.

Similarly decrease in taxes, duties, levies etc. shall be returned/deducted to/by the owner.

4C. GENERAL TECHNICAL CONDITIONS.

4.48 GENERAL

This part covers technical conditions pursuant to the contract and will form an integral part of the contract. The following provisions shall supplement all the detailed technical specifications and requirements brought out in the accompanying technical specifications. The contractor's proposal shall be based on the use of equipment and materials complying fully with the requirements, specified herein. It is recognised that the contractor may have standardised on the use of certain components, materials, processes or procedures different than those specified herein. Alternate proposals offering similar equipment based on the manufacturer's standard practice will also be considered provided such proposals meet the specified designs, standard and performance requirements and are acceptable to the owner.

4.49 LIMIT OF CONTRACT

Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment and/or needed for erection, completion and safe operation of the equipment as required by applicable codes though they may not have been specifically detailed in the technical specifications unless included in the list of exclusions. All similar standard components/parts of similar standard equipment provided, shall be inter-changeable with one another.

4.50 EQUIPMENT PERFORMANCE GUARANTEE

4.50.1 The performance tests of the equipment under the scope of the contract are detailed in the technical specifications. These guarantees shall supplement the general

performance guarantee provisions covered under general terms & conditions of contract in clause entitled "Guarantee".

- 4.50.2 Liquidated damages for not meeting performance guarantee during the performance and guarantee tests shall be assessed and recovered from the contractor, as detailed in the technical specifications. Such liquidated damages shall be without any limitation whatsoever and shall be in addition to damages, if any payable under any other clauses of conditions of contract.

4.51 ENGINEERING DATA

- 4.51.1 The furnishing of engineering data by the contractor shall be in accordance with the schedule for each set of equipment as specified in the technical specifications. The review of these data by the engineer will cover only general conformance of the data to the specifications and documents, interfaces with the equipment provided under the specifications, external connections and of the dimensions which might affect plant layout. This review by the engineer may not indicate a thorough review of all dimensions, quantities and details of the equipment, materials, any devices or items indicated or the accuracy of the information submitted. This review and/or approval by the engineer shall not be construed by the contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these specifications and documents.
- 4.51.2 All engineering data submitted by the contractor after final process including review and approval by the engineer shall form part of the contract documents and the entire works covered under these specifications shall be performed in strict conformity, unless otherwise expressly requested by the engineer in writing.

4.52 DRAWING

- 4.52.1 All drawings submitted by the contractor including those submitted at the time of bid shall be sufficiently detailed to indicate the type, size, arrangement, weight of each component, break-up for packing and shipment, the external-connections, fixing arrangements required, the dimensions required for installation and inter-connections with other equipment and materials, clearances and spaces required between various portions of equipment and any other information specifically requested in the specifications.
- 4.52.2 Each drawing submitted by the contractor shall be clearly marked with the name of the owner, the unit designation, the specifications title, the specification number and the name of the project. If standard catalogue pages are submitted the applicable items shall

be indicated therein. All titles, noting, marking and writing on the drawing shall be in English. All the dimensions should be in metric units.

- 4.52.3 The owner may use a 35 mm microfilm system in processing drawings. All drawings shall be suitable for microfilming. Drawings which are not suitable for microfilming will not be accepted. A copy of each drawings reviewed will be returned to the contractor as stipulated herein. The owner may also accept and use floppies/ disks for computer based drawings.
- 4.52.3.1 Copies of drawings returned to the contractor will be in the form of a print with the owner's marking, or a print made from a microfilm of the marked up drawing or in the form of aperture cards if the contractor has facilities to process such cards or print made from floppies for computer based drawings.
- 4.52.4 The drawings submitted by the contractor shall be reviewed by the engineer as far as practicable within four (4) weeks and shall be modified by the contractor if any modifications and/or corrections are required by the engineer. The contractor shall incorporate such modifications and/or corrections and submit the final drawings for approval. Any delay arising out of failure by the contractor to rectify the drawings in good time shall not alter the contract completion date.
- 4.52.5 Approval by the Nodal Officer or his Nominee: the Contractor shall submit specifications and drawings showing the proposed Temporary Works to the Nodal Officer/Engineer-in-charge or his Nominee, who is to approve them if they comply with the specifications and drawings. The Contractor shall be responsible for design of Temporary Works.
The Nodal Officer/Engineer-in-charge or nominee's approval shall not alter the contractor's responsibility for design of the Temporary Works.
- 4.52.6 The drawings sent for approval to the engineer shall be in quintuplicate. One print of such drawings will be returned to the contractor by the engineer marked approved/approved with corrections. The contractor shall thereupon furnish the owner with nine prints and one reproducible original of the drawings after incorporating all corrections.
- 4.52.7 Further work by the contractor shall be in strict accordance with these drawings and no deviation shall be permitted without the written approval of the engineer, if so required.
- 4.52.8 All manufacturing and fabrication work in connection with the equipment prior to the approval of the drawings shall be at the contractor's risk. The contractor may make changes in the design which are necessary to make the equipment conform, to the

provisions and intent of the contract and such changes will again be subject to approval by the engineer. Approval of contractor's drawings or work by the engineer shall not relieve the contractor of any of his responsibilities and liabilities under the contract.

- 4.52.9 Drawings shall include all installation and detailed piping drawings wherever applicable. All piping 100 mm and larger shall be routed in detail and smaller pipe shall be shown schematically or by isometric drawings. All drawings shall be fully corrected to agree with actual as built construction.
- 4.52.10 Operating and Maintenance Manual: If "as built" drawings and/or operating and Maintenance Manuals are required the contract shall supply them by the dates stated in the contract data.
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 Nodal Officer or his Nominee's approval, the Nodal Officer or his Nominee shall withhold the amount stated in the contract data from payments due to the contractor.

4.53 INSTRUCTION MANUALS

- 4.53.1 The contractor shall submit to the engineer, preliminary instruction manuals for all the equipment, covered under the contract within the time agreed upon between the owner & the contractor. The final instruction manuals complete in all respects shall be submitted by the contractor thirty (30) days before the first shipment of the equipment. The instruction manuals shall contain full details and drawings of all the equipment furnished, the erection procedures, testing procedures, operation and maintenance procedures of the equipment. These instruction manuals shall be submitted in the form of one (1) reproducible original and twelve (12) copies.
- 4.53.2 If after the commissioning and initial operation of the plant, the instruction manuals require any modifications/ additions/changes, the same shall be incorporated and the updated final instruction manuals in the form of one (1) reproducible original and twelve (12) copies shall be submitted by the contractor to the owner.
- 4.53.3 The contractor shall furnish to the owner, twelve (12) sets of spare parts catalogue.

4.54 FIRST FILL OF CONSUMABLE, OILS AND LUBRICANTS

All the first fill of consumable such as oils, lubricants and essential chemicals etc., which will be required to put the equipment covered under the scope of the specifications, into successful trial operation, shall be furnished by the contractor unless specifically excluded under the exclusions in the specifications and other documents.

4.55 MANUFACTURING SCHEDULE

The contractor shall submit to the engineer his manufacture and delivery schedules for all equipment within thirty (30) days from the date of the letter of acceptance of tender. Such schedules shall be in line with the detailed net-work for all phases of the work of the contractor. Such schedules shall be reviewed, up-dated and submitted to the engineer, once every two (2) months thereafter, by the contractor. Schedule shall also include the materials and equipment purchased from outside suppliers.

4.56 REFERENCE STANDARDS

- 4.56.1 The codes and/or standards referred to in these specifications shall govern, in all cases wherever such references are made. In case of a conflict between such codes and/or standards and the specifications, the latter shall govern. Such codes and/or standards referred to shall mean the latest revisions, amendments/changes adopted and published by the relevant agencies. In case of any further conflict in this matter, the same shall be referred to the engineer whose decision shall be final and binding.
- 4.56.2 Other internationally acceptable standards which ensure equal or higher performance than those specified shall also be accepted.

4.57 DESIGN IMPROVEMENT

- 4.57.1 The engineer or the contractor may propose changes in the specification of the equipment or quality thereof and if the parties agree upon any such changes the specification shall be modified accordingly.
- 4.57.2 If any such agreed upon change is such that it affects the price and schedule of completion, the parties shall agree in writing as to the extent of any change in the price and/or schedule of completion before the contractor proceeds with the change. Following such agreement the provision thereof, shall be deemed to have been amended accordingly.

4.58 QUALITY ASSURANCE

4.58.1 Quality Assurance Programme

To ensure that the equipment and services under the scope of this contract whether manufactured or performed within the contractor's works or at his sub-contractor's premises or at the owner's site or at any other place of work are in accordance with the specifications, the contractor shall adopt suitable quality assurance programme to

control such activities at all points necessary. Such programme shall be outlined by the contractor and shall be finally accepted by the engineer after discussions before the issue of letter of acceptance of tender. A quality assurance programme of the contractor shall generally cover the following:

- a. his organisation structure for the management and implementation of the proposed quality assurance programme;
- b. documentation control system;
- c. qualification data for bidder's key personnel;
- d. the procedure for purchase of materials, parts components and selection of subcontractor's services including vendor analysis, source inspection, incoming raw-material inspection, verification of materials purchased etc.:
- e. system for shop manufacturing and site erection control including process control and fabrication and assembly controls;
- f. control of non-conforming items and system for corrective actions;
- g. inspection and test procedure both for manufacture and field activities;
- h. control of calibration and testing of measuring and testing equipment;
- i. system for indication and appraisal of inspection status;
- j. system for quality audits;
- k. system for authorising release of manufactured product to the owner;
- l. system for maintenance of records;
- m. system for handling storage and delivery: and
- n. a quality plan detailing out the specific quality control procedure adopted for controlling the quality characteristics relevant to each item of equipment furnished and each work at different stages executed at work site.

4.58.2 Quality Assurance Documents

The contractor shall be required to submit the following Quality Assurance Documents within three weeks after despatch of the equipment:

- i. all non-destructive examination procedures stress relief and weld repair procedure actually used during fabrication.
- ii. Welder and welding operator qualification certificates.
- iii. Welder identification list, listing welder's and welding operator's qualification procedure and welding identification symbols.
- iv. Material mill test reports on components as specified by the specification.
- v. the inspection plan with verification, inspection plan check points, verification sketches, if used, and methods used to verify that the inspection and testing points in the inspection plan were performed satisfactorily.
- vi. Sketches and drawings used for indicating the method of traceability of the radiographs to the location on the equipment.
- vii. All non-destructive examination result reports including radiography interpretation reports.

- viii. Stress relief time temperature charts.
- ix. Factory test results for testing required as per applicable codes and standard referred in the specifications.
- x. The engineer or his duly authorised representative reserves the right to carry out quality audit and quality surveillance of the systems and procedures of the contractor/his vendor's quality management and control activities.

4.59 ENGINEER'S SUPERVISION

- 4.59.1 To eliminate delays and avoid disputes and litigation it is agreed between the parties to the contract that all matters and questions shall be referred to the engineer and his decision shall be final.
- 4.59.2 The work shall be performed under the direction and supervision of the engineer. The scope of the duties of the engineer, pursuant to the contract, will include but not be limited to the following:
 - a. Interpretation of all the terms and conditions of these documents and specification.
 - b. Review and interpretation of all the contractor's drawings, engineering data etc.
 - c. Witness or authorise his representative to witness tests and trials either at the manufacturer's works or at site, or at any place where work is performed under the contract.
 - d. Inspect, accept or reject any equipment, material and work under the contract.
 - e. Issue certificate of acceptance and/or progressive payment and final payment certificates.
 - f. Review and suggest modifications and improvements in completion schedules from time to time.
 - g. Supervise the quality assurance program implementation at all stages of the works.
 - h. To receive and endorse the despatch documents enabling the contractor to clear the consignments.

4.60 INSPECTION, TESTING AND INSPECTION CERTIFICATE

- 4.60.1 The engineer, his duly authorised representative and/or outside inspection agency acting on behalf of the owner shall have at all reasonable times access to the contractor's premises or works and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture or erection and if part of the works is being manufactured or assembled at other premises or works, the contractor shall obtain for the engineer and for his duly authorised representative permission to inspect as if the works were manufactured or assembled on the contractor's own premises or works.

- 4.60.2 The contractor shall give the Engineer/Inspector fifteen (15) days written notice of any material being ready for testing. Such tests shall be to the contractor's account except for the expenses of the Inspector.

The Engineer/Inspector, unless witnessing of the tests is virtually waived, will attend such tests within fifteen (15) days of the date on which the equipment is notified as being ready for test/inspection, failing which the contractor may proceed with the test which shall be deemed to have been made in the Inspector's presence and he shall forthwith forward to the Inspector duly certified copies of tests in triplicate.

- 4.60.3 The Engineer or Inspector shall within fifteen (15) days from the date of inspection as defined herein give notice in writing to the contractor, of any objection to any drawings and all or any equipment and workmanship which in his opinion is not in accordance with the contract. The contractor shall give due consideration to such objections and shall either make the modifications that may be necessary to meet the said objections or shall confirm in writing to the Engineer/Inspector giving reasons therein, that no modifications are necessary to comply with the contract.
- 4.60.4 When the factory tests have been completed at the contractor's or sub-contractor's works, the Engineer/Inspector shall issue a certificate to this effect within fifteen (15) days after completion of tests but if the tests are not witnessed by the Engineer/Inspector, the certificate shall be issued within fifteen (15) days of the receipt of the contractor's test certificate by the Engineer/Inspector. Failure of the Engineer/Inspector to issue such a certificate shall not prevent the contractor from proceeding with the works. The completion of these tests or the issue of the certificate shall not bind the owner to accept the equipment should it, on further tests after erection, be found not to comply with the contract.
- 4.60.5 In all cases where the contract provides for tests whether at the premises or works of the contractor or of any sub-contractor, the contractor, except where otherwise specified, shall provide free of charge such items as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be reasonably demanded by the Engineer/Inspector or his authorised representative to carry out effectively such tests of the equipment in accordance with the contract and shall give facilities to the Engineer/Inspector or to his authorised representative to accomplish testing.
- 4.60.6 The inspection by Engineer and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the contractor in respect of the agreed quality assurance programme forming a part of the contract.

4.61 TEST

4.61.1 Start up

4.61.1.1

On completion of erection of the equipment and before start-up, each item of the equipment shall be thoroughly cleaned and then inspected jointly by the Engineer and the contractor for correctness and completeness of installation and acceptability of start -up, leading to initial pre-commissioning tests at site.

The list of pre-commissioning tests to be performed shall be as mutually agreed and included in the contractor's quality assurance programme.

4.61.1.2

The contractor's commissioning/start-up engineers specifically identified as far as possible shall be responsible for carrying out all the pre-commissioning tests. On completion of inspection, checking and after the pre -commissioning tests are satisfactorily over, the complete equipment shall be placed on initial operation during which period the complete equipment shall be operated integral with sub -systems and supporting equipment as a complete plant referred hereinafter as plant.

4.61.2 Trial Operation

4.61.2.1

The plant shall then be on trial operation during which period all necessary adjustments shall be made while operating over the full load-range enabling the plant to be made ready for performance and guarantee tests.

4.61.2.2

The duration of trial operation of the complete equipment shall be fourteen (14) days out of which at least seventy two (72) hours shall be continuous operation on full load or any other duration as may be agreed to, between the engineer and the contractor. The trial operation shall be considered successful, provided that each item of the equipment can operate continuously at the specified operating characteristics, for the period of trial operation.

4.61.2.3

For the period of trial operation, the time of operation with any load shall be counted. Minor interruptions not exceeding four (4) hours at a time, caused during the continuous operation shall not affect the total duration of trial operation. However, if in the opinion of the engineer, the interruption is long, the trial operation shall be prolonged for the period of interruption.

4.61.2.4

A trial operation report comprising of observations and recordings of various parameters to be measured in respect of the above trial operation shall be prepared by the contractor. This report, besides recording the details of the various observations during trial run, shall also include the dates of start and finish of the trial operations and shall be signed by the representatives of both the parties. The report shall have sheets, recording

all the details of interruptions occurred, adjustments made and any minor repairs done during the trial operation. Based on the observations, necessary modifications/ repairs to the plant shall be carried out by the contractor to the full satisfaction of the engineer to enable the later to accord permission to carry out performance and guarantee tests on the plant. However, minor defects which do not endanger the safe operation of the equipment, shall not be considered as reasons for with holding the aforesaid permission.

4.61.3 Performance and guarantee test

- 4.61.3.1 The final test as to the performance and guarantees shall be conducted at site, by the owner. Such tests will be commenced within a period of two (2) months after successful completion of trial operations. Any extension of time beyond the above two (2) months shall be mutually agreed upon.
- 4.61.3.2 These tests shall be binding on both the parties of the contract to determine compliance of the equipment with the performance guarantees.
- 4.61.3.3 The available instrumentation and control equipment will be used during such tests and the engineer will calibrate, all such measuring equipment and devices as far as practicable. However, unmeasurable parameters shall be taken into account in a reasonable manner by the engineer, for the equipment of these tests. The tests will be conducted at the specified load points and as near the specified cycle condition as practicable. The engineer will apply proper corrections in calculation, to take into account conditions which do not correspond to the specified conditions.
- 4.61.3.4 Any special equipment, tools and tackles required for the successful completion of the performance and guarantee tests shall be provided by the contractor, free of cost.
- 4.61.3.5 The guaranteed performance figures of the equipment shall be proved by the contractor during these performance and guarantee tests. Should the results of these tests show any decrease from the guaranteed values, the contractor shall modify the equipment as required to enable it to meet the guarantees. In such case, performance and guarantee tests shall be repeated within one month, from the date the equipment is ready for re-tests and all cost for modifications including labour, materials and the cost of additional testing to prove that the equipment meets the guarantees, shall be borne by the contractor. Duration of performance guarantee tests will be of one month of which 6 (six) days continuous on load operation is the minimum requirement and in case it fails , the process of performance guarantee tests will be repeated.

- 4.61.3.6 The specific tests to be conducted on equipment has been brought out in the technical specifications.
- 4.61.3.7 Performance and guarantee test shall make allowance for instrumentation errors as may be decided by the engineer-in-charge.

4.61.4 TEST CODES

The provisions outlined in the ASME performance test codes or other international and Indian approved equivalents shall generally be used as a guide for all the above test procedures unless otherwise specified in the technical specifications.

4.62 PACKING

- 4.62.1 All the equipment shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at site till the time of erection. While packing all the materials, the limitation from the point of view of availability of railway wagon sizes in India should be taken into account. The contractor shall be responsible for any loss or damage during transportation, handling and storage due to improper packing.

4.63 PROTECTION

All coated surfaces shall be protected against abrasions, impact, discoloration and any other damages. All exposed threaded portions shall be suitably protected with either a metallic or a non-metallic protecting device. All ends of all valves and piping and conduit equipment connections shall be properly sealed with suitable devices to protect them from damage. The parts which are likely to get rusted, due to exposure to weather, should also be properly treated and protected in a suitable manner.

4.64 PRESERVATIVE SHOP COATING

- 4.64.1 All exposed metallic surfaces subject to corrosion shall be protected by shop application of suitable coatings. All surfaces which will not be easily accessible after the shop assembly, shall before hand be treated and protected for the life of the equipment. All surfaces shall be thoroughly cleaned of all mill scale, oxide and other coatings and prepared in the shop. The surfaces that are to be finish painted after installation or require corrosion protection until installation, shall be shop painted with at least two coats of primer. Transformers and other electrical equipment, if included shall be shop finished with one or more coats of primer and two coats of high grade resistance enamel. The finished colours shall be as per manufacturer's standards, to be selected and specified by the engineering at a later date.

4.64.2 Shop primer for all steel surface which will be exposed to operating temperature below 95°C shall be selected by the contractor, after obtaining specific approval of the engineer regarding the quality of primer proposed to be applied. Special high temperature primer shall be used on surfaces exposed to temperatures higher than 95°C and such primers shall also be subject to the approval of the engineer.

4.64.3 All other steel surfaces which are not to be painted shall be coated with suitable dust preventive compound subject to the approval of the engineer.

4.65 PROTECTIVE GUARDS

Suitable guards shall be provided for protection of personnel on all exposed rotating and/or moving machine parts. All such guards with necessary spares and accessories shall be designed for easy installation and removal for maintenance purposes.

4.66 DESIGN CO-ORDINATION

The contractor shall be responsible for the selection and design of appropriate equipment to provide the best co-ordinated performance of the entire system. The basic design requirements are detailed out in Technical Specifications. The design of various components, sub-assemblies and assemblies shall be so done, so that it facilitates easy field assembly and maintenance. All the rotating components shall be so selected that the natural frequency of the complete unit is not critical at or close to the operating range of the unit.

4.67 DESIGN CO-ORDINATION MEETING

The contractor will be called upon to attend design co-ordination meetings with the engineer, other contractors and the consultants of the owner during the period of contract. The contractor shall attend such meetings at his own cost at NEC(HQ), Margherita or at mutually agreed venue as and when required and fully co-operate with such persons and agencies involved during those discussions.

4.68 TOOLS AND TACKLES

The contractor shall supply with the equipment one complete set of all special tools and tackles for the erection, assembly, disassembly and maintenance of the equipment. However, these tools and tackles shall be separately packed and brought on to site.

4.69 NOISE LEVEL

The equivalent 'A' weighted sound level measured at a distance of 1.5 metres above floor level in elevation and one metre horizontally from the base of any equipment furnished and installed under these specifications, expressed in decibels to a reference of 0.0002 microbar, shall not exceed 85 dBA.

4.70 TAKING OVER

Upon successful completion of all the tests to be performed at site on equipment furnished and erected by the contractor, the engineer shall issue to the contractor a taking over certificate as a proof of the final acceptance of the equipment. Such certificate shall not unreasonably be withheld nor will be engineer delay the issuance thereof, on account of minor omissions or defects which do not affect the commercial operation and/or cause any serious risk to the equipment. Such certificate shall not relieve the contractor of any of his obligations which otherwise survive, by the terms and conditions of the contract after issuance of such certificate.

4.71 INDIAN STANDARDS

Normally Indian Standards as published by BUREAU OF INDIAN STANDARDS shall be followed. Wherever relevant Indian Standard is not published by the BIS, International Standards or American Standard or German Standard or British Standard, as decided by the Engineer in consultations with the Consultants employed by the Owner, shall be followed.

4.72 WELDING

If the manufacturer has special requirements relating to the welding procedures for welds at the terminals of the equipment to be procured by the owner under separate specifications, the requirements shall be submitted to the engineer in advance of commencement of erection work.

4.73 LUBRICATION

Equipment shall be lubricated by systems designed for continuous operation. Lubricant level indicators shall be furnished and marked to indicate proper levels under both stand-still and operating conditions.

4.74 EQUIPMENT BASES

A cast iron or welded steel base plate shall be provided for all rotating equipment which is to be installed on a concrete/structural steel base unless otherwise agreed to by the engineer. Each base plate shall support the unit and its drive assembly, shall be of a neat design with pads for anchoring the units, shall have a raised lip all around, and shall have threaded drain connections.

4.75 RATING PLATES, NAME PLATES AND LABELS

- 4.75.1 Each main and auxiliary items of plant is to have permanently attached to it in a conspicuous position a rating plate of non corrosive material upon which is to be engraved the manufacturer's name, equipment, type or serial number, together with details of the loading conditions under which the item of plant in question have been designed to operate, and such diagram plates as may be required by the engineer.
- 4.75.2 Each item of plant is to be provided with a nameplate or label designating the service of the particular equipment. The inscriptions are to be approved by the engineer or shall be as detailed in the appropriate sections of the technical specifications.
- 4.75.3 Such nameplates or labels are to be of white non-hygroscopic material with engraved black lettering or, alternatively, in the case of indoor circuit breakers, starters etc. of transparent plastic material with suitably coloured lettering engraved on the back.
- 4.75.4 Items of plant such as valves, which are subject to handling, are to be provided with an engraved chromium plated nameplate or label with engraving filled with enamel.
- 4.75.5 All such name plates, instruction plates, lubrication charts etc. shall be bilingual with Hindi inscription first, followed by English. Alternatively two separate plates one with Hindi and the other with English inscriptions may be provided.

4.76 COLOUR CODE FOR PIPE SERVICES

All pipe services wherever applicable are to be painted in accordance with the owner's standard colour scheme, by the contractor.

4.77 SERVICE BY THE OWNER

- 4.77.1 The following services shall be provided by the owner:
 - i. Construction/ drinking water at one point within 100 metres of the work site, charges to be decided by the company.
 - ii. Auxiliary power for construction at one point within 100 metres of the work site, charges to be decided by the company.

4.77.2 In the event of the contractor requiring these services at parameters other than those specified above, for any systems, equipment, instrument etc. he shall make the necessary arrangements himself.

4D. ERECTION CONDITIONS OF CONTRACT

4.78 GENERAL

4.78.1 The following shall supplement the conditions already contained in the other parts of these specifications and documents and shall govern that portion of the work of this contract to be performed at site.

4.78.2 The contractor upon signing of the contract shall, in addition to a project co-ordinator, nominate another responsible officer as his representative at site suitably designated for the purpose of overall responsibility and co-ordination of the works to be performed at site. Such person shall function from the site office of the contractor during the pendency of contract.

4.79 REGULATION OF LOCAL AUTHORITIES AND STATUTES

4.79.1 The contractor shall comply with all the rules and regulations of local authorities during the performance of his field activities. He shall also comply with the minimum wages act, 1948 and the payment of wages act (both of the Government of India and the local State Government) and the rules made thereunder in respect of any employee or workman employed or engaged by him or his subcontractor.

The contractor shall make all necessary payments of the Provident Fund for the workmen employed by him for the work as per the laws prevailing under provisions of CMPF and Allied Schemes and CMPF and Miscellaneous Provisions Act 1948 or Employees Provident Fund and Miscellaneous Provisions Act 1952 as the case may be.

4.79.2 All registration and statutory inspection fees, if any, in respect of his work pursuant to this contract shall be to the account of the contractor. However, any registration, statutory inspection fees lawfully payable under the provisions of the rules and regulations of the Government and any other statutory laws and its amendments from time to time during erection in respect of the plant equipment ultimately to be owned by the owner, shall be to the account of the owner. Should any such inspection or registration need to be arranged due to the fault of the contractor or his sub-contractor, the additional fees for such inspection and/or registration shall be borne by the contractor.

4.80 OWNER'S LIEN ON EQUIPMENT

The owner shall have lien on all equipment including those of the contractor brought to the site for the purpose of erection, testing and commissioning of the plant. The owner shall continue to hold the lien on all such equipment throughout the period of contract. No material brought to the site shall be removed from the site by the contractor and/or his sub-contractors without the prior written approval of the engineer.

4.81 INSPECTION, TESTING AND INSPECTION CERTIFICATES

The provisions of the clause entitled inspection testing and inspection certificates under section GTC shall also be applicable to the erection portion of the works. The engineer shall have the right to re-inspect any equipment though previously inspected and approved by him, at the contractor's works, before and after the same are constructed and/or erected at site. If by the above inspection, the engineer rejects any work or equipment, the contractor shall make good for such rejection either by replacement or modifications/repairs as may be necessary, to the satisfaction of the engineer. Such replacement will also include the replacement or re-execution of such of those works of other contractors and/or agencies, which might have got damaged or affected by the replacements or re-work done to the contractor's work.

4.82 ACCESS TO SITE AND WORKS ON SITE

- 4.82.1 Suitable access to and possession of the site shall be accorded to the contractor by the owner in reasonable time.
- 4.82.2 The owner shall have the necessary foundations to be provided by him ready, as per the agreed schedule for the execution of the individual phases of works.
- 4.82.3 The works so far as it is carried out on the owner's premises, shall be carried out at such time as the owner may approve and the owner shall give the contractor reasonable facilities for carrying out the works.
- 4.82.4 In the execution of the works, no persons other than the contractor or his duly appointed representative, sub-contractor and workmen, shall be allowed to do work on the site, except by the special permission, in writing of the engineer or his representative.

4.83 CONTRACTOR'S SITE OFFICE ESTABLISHMENT

The contractor shall establish a site office at the site and keep posted an authorised representative for the purpose of the contract. Any written order or instruction of the engineer or his duly authorized representative shall be communicated to the said authorised resident representing the contractor and the same shall be deemed to have been communicated to the contractor at his legal address.

4.84 CO-OPERATION WITH OTHER CONTRACTORS

- 4.84.1 The contractor shall co-operate with all other contractors or tradesmen of the owner, who may be performing other works on behalf of the owner and the workmen who may be employed by the owner and doing work in the vicinity of the works under the contract. The contractor shall also so arrange to perform his work as to minimise, to the maximum extent possible, interference with the work of other contractors and his workmen. Any injury or damage that may be sustained in the employees of the other contractors and the owner, due to the contractor's work shall promptly be made good at his own expense. The engineer shall determine the resolution of any difference or conflict that may arise between the contractor and other contractors or between the contractor and the workmen of the owner in regard to their work. If the works of the contractor is delayed because of any acts or omissions of another contractor, the contractor shall have no claim against the owner on that account other than an extension of time for completing his works.
- 4.84.2 The engineer shall be notified promptly by the contractor of any defects in the other contractor's works that could affect the contractor's works. The engineer shall determine the corrective measures if any, required to rectify this situation after inspection of the works and such decisions by the engineer shall be binding on the contractor.

4.85 DISCIPLINE OF WORKMEN

The contractor shall adhere to the disciplinary procedure set by the engineer in respect of his employees and workmen at site. The engineer shall be at liberty to object to the presence of any representative or employees of the contractor at the site, if in the opinion of the engineer such employee has mis-conducted himself or be incompetent or negligent or otherwise undesirable and then the contractor shall remove such a person objected to and provide in his place a competent replacement.

4.86 CONTRACTOR'S FIELD OPERATION

- 4.86.1 The contractor shall keep the engineer informed in advance regarding his field activity plans and schedules for carrying out each part of the works. Any review of such plan or schedule or method of work by the engineer shall not relieve the contractor of any of his responsibilities towards the field activities.
Such reviews shall also not be considered as an assumption of any risk or liability by the engineer or the owner or any of his representatives and no claim of the contractor will be entertained because of the failure or inefficiency of any such plan or schedule or method of work reviewed. The contractor shall be solely responsible for the safety, adequacy and efficiency of plant and equipment and his erection methods.

4.86.2 The contractor shall have complete responsibility for the conditions of the work site including the safety of all persons employed by him or his sub-contractor and all the properties under his custody during the performance of the work. This requirement shall apply continuously till the completion of the contract and shall not be limited to normal working hours. The construction review by the engineer is not intended to include review of contractor's safety measures in, on or near the work-site, and their adequacy or otherwise.

4.87 PHOTOGRAHPS AND PROGRESS REPORT

4.87.1 The contractor shall furnish three (3) prints each to the engineer of progress photographs of the work done at site. Photographs shall be taken as and when indicated by the engineer or his representative.

Photographs shall be adequate in size and number to indicate various stages of erection. Each photograph shall contain the date, the name of the contractor and the title of the photograph.

4.87.2 The above photographs shall accompany the monthly progress report detailing out the progress achieved on all erection activities as compared to the schedules. The report shall also indicate the reasons for the variance between the scheduled and actual progress and the action proposed for corrective measures wherever necessary.

4.88 MAN-POWER REPORT

4.88.1 The contractor shall submit to the engineer, on the first day of every month, a man hour schedule for the month, detailing the man hours scheduled for the month, skill wise and area -wise.

4.88.2 The contractor shall also submit to the engineer on the first day of every month, a man power report of the previous months detailing the number of persons scheduled to have been employed and actually employed, skill-wise and areas of employment of such labour.

4.89 PROTECTION WORK

The contractor shall have total responsibility for protecting his works till it is finally taken over by the engineer. No claim will be entertained by the owner or the engineer for any damage or loss to the contractor's works and the contractor shall be responsible for the complete restoration of the damaged works to its original condition to comply with the specifications and drawings. Should any such damage to the contractor's works occur because of other party not under his supervision or control, the contractor shall make his

claim directly with the party concerned. If dis-agreement or conflict or dispute develops between the contractor and the other party or parties concerned regarding the responsibility for damage to the contractor's works the same shall be resolved as per the provisions of the clause 4.82 above entitled cooperation with other contractors. The contractor shall not cause any delay in the repair of such damaged works because of any delay in the resolution of such disputes. The contractor shall proceed to repair the work immediately and the cause thereof will be assigned pending resolution of such dispute.

4.90 EMPLOYMENT OF LABOUR

- 4.90.1 The contractor will be expected to employ on the work only his regular skilled employees with experience of his particular work. No female labour shall be employed after darkness no persons below the age of eighteen years shall be employed.
- 4.90.2 All traveling expenses including provisions of all necessary transport to and from site lodging allowances and other payments to contractor's employees shall be the sole responsibility of the contractor.
- 4.90.3 The hour of work on the site shall be decided by the owner and the contractor shall adhere to it. Working hours will normally be eight (8) hours per day- Monday to Saturday.
- 4.90.4 Contractor's employees shall wear identification badges while on work at site.
- 4.90.5 In case the owner becomes liable to pay any wages or dues to the labour or to any Government agency under any of the provisions of the Minimum Wages Act, Workmen compensation Act, Contract Labour Regulation Abolition Act, CMPF Act/EPF Act or any other law due to act of omission of the contractor, the owner may make such payments and shall recover the same from the contractor's bills.

4.91 FACILITIES TO BE PROVIDED BY THE OWNER

4.91.1 SPACE

The contractor shall advise the owner within thirty (30) days from the date of acceptance of the letter of award, about his exact requirement of space for his office, mess-rooms storage area, pre-assembly and fabrication areas, labour colony area, toilets, etc. The above requirement shall be reviewed by the engineer and space will be allotted to the contractor for construction of his temporary structures like office, storage sheds, labour and staff colony and other utilities etc. for his own as well as his sub-contractor's use.

4.91.2 ELECTRICITY:

The contractor shall submit to the engineer within thirty (30) days from the date of acceptance of the award letter, his electrical power requirements, if any, to allow the planning of the temporary electrical distribution by the engineer. The contractor shall be provided with supply of electricity for the purposes of the contract, only at one point in the project site. The contractor shall make his own further distribution arrangement. All temporary wiring must comply with local regulations and will be subject to engineer's

inspection and approval before connection to supply. Power supply for labour colonies shall also be provided at one point. The contractor shall be charged for the power supplied at work site and labour colonies at prevalent rate of power supplied by State Electricity Board/ or any other organisation.

4.91.3 WATER:

Supply of water will be made available for the construction purposes at an agreed single point within 100 metres of the work site. And further distribution will be the responsibility of the contractor. The contractor shall be charged for the water supplied at work site @ 1% of the value of civil works and shall be deducted from the contractor's running/final bills.

4.92 FACILITIES TO BE PROVIDED BY THE CONTRACTOR

4.92.1 Tools, tackles and scaffoldings

The contractor shall provide all the construction equipment, tools, tackles and scaffoldings required for pre-assembly, erection, testing and commissioning of the equipment covered under the contract. He shall submit a list of all such materials to the engineer before the commencement of pre-assembly at site. These tools and tackles shall not be removed from the site without the written permission of the engineer.

4.92.2 Communication

The owner will extend the telephone & telex facilities, if available at site, for purposes of contract. The contractor shall be charged at actual for such facilities.

4.92.3 First – Aid

4.92.3.1 The contractor shall provide necessary first-aid facilities for all his employees, representatives and workmen working at the site. Enough number of contractor's personnel shall be trained in administering first-aid.

4.92.3.2 The owner will provide the contractor, in case of an emergency, the services of an ambulance for transportation to the nearest hospital.

4.92.4 Cleanliness

4.92.4.1 The contractor shall be responsible for keeping the entire area allotted to him clean and free from rubbish, debris etc. during the period of contract. The contractor shall employ enough number of special personnel to thoroughly clean his work area at least once in a day. All such rubbish and scrap material shall be stacked or disposed in a place to be identified by the engineer. Materials and stores shall be so arranged to permit easy cleaning of the area in areas where equipment might drip oil and cause damage to the floor surface, a suitable protective cover of a flame resistant, oil proof sheet shall be provided to protect the floor from such damage.

4.90.4.2 Similarly the labour colony, the offices and the residential areas of the contractor's employees and workmen shall be kept clean and neat to the entire satisfaction of the engineer. Proper sanitary arrangement shall be provided by the contractor, in the work areas, office and residential areas of the contractor.

4.93 LINES AND GRADES

All the works shall be performed to the lines, grades and elevations indicated on the drawings. The contractor shall be responsible to locate and layout the works. Basic horizontal and vertical control points will be established and marked by the engineer at site at suitable points. These points shall be used as datum for the works under the contract. The contractor shall inform the engineer well in advance of the times and places at which he wishes to do work in the area allotted to him, so that suitable datum points may be established and checked by the engineer to enable the contractor to proceed with his works. Any work done without being properly located may be removed and/or dismantled by the engineer at contractor's expense.

4.94 FIRE PROTECTION

- 4.94.1 The work procedures that are to be used during the erection shall be those which minimise fire hazards to the extent practicable. Combustible materials, combustible waste and rubbish shall be collected and removed from the site at least once each day. Fuels, oils and volatile or flammable materials shall be stored away from the construction and equipment and materials storage areas in safe containers. Untreated canvas paper, plastic or other flammable flexible materials shall not at all be used at site for any other purpose unless otherwise specified. If any such materials are received with the equipment at the site, the same shall be removed and replaced with acceptable material before moving into the construction area or storage.
- 4.94.2 Similarly corrugated paper fabricated cartons etc. will not be permitted in the construction area either for storage or for handling of materials. All such materials used shall be water proof and flame resistant type. All the other materials such as working drawings, plants, etc. which are combustible but are essential for the works to be executed shall be protected against combustion resulting from welding sparks, cutting flames and other similar fire sources.
- 4.94.3 All the contractor's supervisory personnel and sufficient number of workers shall be trained for fire - fighting and shall be assigned specific fire protection duties. Enough of such trained personnel must be available at the site during the entire period of the contract.

4.94.4 The contractor shall provide enough fire protection equipment of the types and number for the ware - houses, office, temporary structures, labour colony area etc. Access to such fire protection equipment, shall be easy and kept open at all times.

4.95 **SECURITY**

The contractor shall have total responsibility for all equipment and materials in his custody stored, loose, semi-assembled and/or erected by him at site. The contractor shall make suitable security arrangements including employment of security personnel to ensure the protection of all materials, equipment and works from theft, fire, pilferage and any other damages and losses. All materials of the contractor shall enter and leave the project site only with the written permission of the engineer in the prescribed manner.

4.96 **CONTRACTOR'S AREA LIMITS**

The engineer will mark-out the boundary limits of access roads, parking spaces, storage and construction areas for the contractor and the contractor shall not trespass the areas not so marked out for him. The contractor shall be responsible to ensure that none of his personnel move out of the areas marked out for his operations. In case of such a need for the contractor's personnel to work out of the areas marked out for him, the same shall be done only with the written permission of the engineer.

4.97 **CONTRACTOR'S CO-OPERATION WITH THE OWNER**

In cases where the performance of the erection work by the contractor affects the operation of the system facilities of the owner, such erection work of the contractor shall be scheduled to be performed only in the manner stipulated by the engineer and the same shall be acceptable at all times to the contractor.

The engineer may impose such restrictions on the facilities provided to the contractor such as electricity, water, etc. as he may think fit in the interest of the owner and the contractor shall strictly adhere etc. such restrictions and co-operate with the engineer. It will be the responsibility of the contractor to provide all necessary temporary instrumentation and other measuring devices required during start-up and operation of the equipment systems, which are erected by him. The contractor shall also be responsible for flushing and initial filling of all the oil and lubricants required for the equipment furnished and erected by him, so as to make such equipment ready for operation. The contractor shall be responsible for supplying such flushing oil and other lubricants unless otherwise specified elsewhere in these documents & specifications.

4.98

PRE-COMMISSIONING TRAILS AND INITIAL OPERATIONS

The pre-commissioning trials and initial operations of the equipment furnished and erected by the contractor shall be the responsibility of the contractor as detailed in relevant clauses in section GTC. The contractor shall provide, in addition, test instruments, calibrating devices, etc. and the labour required for the successful performance of these trials. It is anticipated that the above test may prolong for a long time, the contractor's workmen required for the above test shall always be present at site during such trials.

4.99

MATERIALS HANDLING AND STORAGE

4.99.1

All the equipment furnished under the contract and arriving at site shall be promptly received, unloaded and transported and stored in the storage spaces by the contractor.

4.99.2

Contractor shall be responsible for examining all the shipment and notify the engineer immediately or any damage, shortage, discrepancy, etc. for the purpose of engineer's information only. The contractor shall submit to the engineer every week a report detailing all the receipts during the week. However, the contractor shall be solely responsible for any shortages or damage in transit, handling and/or in storage and erection of the equipment at the site. Any demurrage, wharfage and other such charges claimed by the transporters, railways etc. shall be to the account of the contractor.

4.99.3

The contractor shall maintain an accurate and exhaustive record detailing out the list of all equipment received by him for the purpose of erection and keep such record open for the inspection of the engineer at any time.

4.99.4

All equipment shall be handled very carefully to prevent any damage or loss. No bare wire ropes, slings, etc. shall be used for unloading and/or handling of the equipment without the specific written permission of the engineer. The equipment stored shall be properly protected to prevent damage either to the equipment or to the floor where they are stored. The equipment from the store shall be moved to the actual location at the appropriate time so as to avoid damage of such equipment at site.

4.99.5

All electrical panels, control gear, motors and such other devices shall be properly dried by heating before they are installed and energised. Motor bearings, slip rings, commutators and other exposed parts shall be protected against moisture ingress and corrosion during storage and periodically inspected. Heavy rotating parts in assembled conditions shall be periodically rotated to prevent corrosion due to prolonged storage.

4.99.6

All the electrical equipment such as motors, generators, etc. shall be tested for insulation resistance at least once in three months from the date of receipt till the date of commissioning and a record of such measured insulation values maintained by the contractor. Such records shall be open for inspection by the engineer.

- 4.99.7 The contractor shall ensure that all the packing materials and protection devices used for the various equipment during transit and storage are removed before the equipment are installed.
- 4.99.8 The consumable and other supplies likely to deteriorate due to storage must be thoroughly protected and stored in a suitable manner to prevent damage or deterioration in quality by storage.
- 4.99.9 All the materials stored in the open or duty location must be covered with suitable weather-proof and flameproof covering materials wherever applicable.
- 4.99.10 If the materials belonging to the contractor are stored in areas other than those earmarked for him, the engineer will have the right to get it moved to the area earmarked for the contractor at the contractor's cost.
- 4.99.11 The contractor shall be responsible for making suitable indoor storage facilities to store all equipment which require indoor storage. Normally, all the electrical equipment such as motors, control gear, generators, exciters and consumable like electrodes, lubricants etc. shall be stored in the closed storage space. The engineer, in addition, may direct the contractor to move certain other materials which in his opinion will require indoor storage, to indoor storage areas which the contractor shall strictly comply with.

4.100 CONSTRUCTION MANAGEMENT

- 4.100.1 The field activities of the contractors working at site will be co-ordinated by the engineer and the engineer's decision shall be final in resolving any disputes or conflicts between the contractor and other contractors and tradesmen of the owner regarding scheduling and co-ordination of work. Such decision by the engineer shall not be a cause for extra compensation or extension of time for the contractor.
- 4.100.2 The engineer shall hold weekly meetings of all the contractors working at site, at a time and a place to be designated by the engineer. The contractor shall attend such meetings and take notes of discussions during the meeting and the decisions of the engineer and shall strictly adhere to those decisions in performing his works. In addition to the above weekly meetings, the engineer may call for other meetings either with individual contractors or with selected number of contractors and in such a case the contractor, if called will also attend such meetings.
- 4.100.3 Time is the essence of the contract and the contractor shall be responsible for performance this works in accordance with the specified construction schedule. If at any time, the contractor is falling behind the schedule, he shall take necessary action to make good for such delays by increasing his work force or by working overtime or otherwise accelerate the progress of the work to comply with the schedule and shall communicate such actions in writing to the engineer, satisfying that his action will compensate for the delay. The contractor shall not be allowed any extra compensation for such action.

4.100.4 The engineer shall however not be responsible for provision of additional labour and/or materials or supply or any other services to the contractor except for the co-ordination work between various contractors as set out earlier.

4.101 FIELD OFFICE RECORDS

The contractor shall maintain at his site office up-to-date copies of all drawings, specifications and other contract documents and any other supplementary data complete with all the latest revisions thereto. The contractor shall also maintain in addition the continuous record of all changes to the above contract documents, drawings, specifications, supplementary data, etc. effected at the field and on completion of his total assignment under the contract shall incorporate all such changes on the drawings and other engineering data to indicate as installed condition of the equipment furnished and erected under the contract. Such drawings and engineering data shall be submitted to the engineer in required number of copies. Daily work programme with progress of the previous day and deployment of labour related to work programme and attendance of workmen deployed during the previous day shall be maintained in a register. This register shall be signed by authorised representative of the contractor which will then be checked and signed by the owner's representative. Every three months this register shall be deposited to the owner which shall then be owner's property.

4.102 CONTRACTOR'S MATERIALS BROUGHT ON TO SITE

4.102.1 The contractor shall bring to site all equipment, parts, materials, including construction equipment, tools and tackles for the purpose of the works with intimation to the engineer. All such goods shall, from the time of their being brought into the owner, but may be used for the purpose of the works only and shall not on any account be removed or taken away by the contractor without the written permission of the engineer. The contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof and damage thereto.

4.102.2 The owner shall have a lien on such goods for any sum or sums which may at any time be due or owing to him by the contractor, under, in respect of or by reasons of the contract. After giving a fifteen (15) days' notice in writing of his intention to do so, the owner shall be at liberty to sell and dispose of any such goods, in such manner as he shall think fit including public auction or private treaty and to apply the proceeds in or towards the satisfaction of such sum or sums due as aforesaid.

4.102.3 After the completion of the works, the contractor shall remove from the site under the direction of the engineer the materials such as construction equipment, erection tools and tackles, scaffolding etc. with the written permission of the engineer. If the contractor fails to remove such materials, within 15 days of issue of a notice by the

engineer to do so then the engineer shall have the liberty to dispose of such materials as detailed under clause 4.102.2 above and credit the proceeds thereto the account of the contractor.

4.103 PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY

- 4.103.1 The contractor shall be responsible for any damage resulting from his operations. He shall also be responsible for protection of all persons including members of public and employees of the owner and the employees of other contractors and sub-contractors and all public and private property including structures, buildings, other plants and equipment and utilities either above or below the ground.
- 4.103.2 The contractor will ensure provision of necessary safety equipment such as barriers, sign-boards, warning lights and alarms, etc. to provide adequate protection to persons and property. The contractor shall be responsible to give reasonable notice to the engineer and the owners of public or private property and utilities when such property and utilities are likely to get damaged or injured during the performance of his works and shall make all necessary arrangements with such owners, related to removal and/or replacement or protection of such property and utilities.

4.104 PAINTING

All exposed metal parts of the equipment including pipings, structure railing etc. wherever applicable, after installation unless otherwise surface protected, shall be first painted with at least one coat of suitable primer which matches the shop primer paint used, after thoroughly cleaning all such parts of all dirt, rust, scales, greases, oils and other foreign materials by wire brushing, scarping or sand blasting, and the same being inspected and approved by the engineer for painting. Afterwards, the above parts shall be finished with two coats of alloyed resin machinery enamel paints. The quality of the finish paint shall be as per the standards of ISI or equivalent and to be of the colour as approved by the engineer.

4.105 INSURANCE

- 4.105.1 In addition to the conditions covered under the clause entitled insurance in general terms and conditions of contract of this volume, the following provisions will also apply to the portion of the works to be done beyond the contractor's own or his sub-contractor's works.
 - 4.105.2 Workmen's compensation insurance.
This insurance shall protect the contractor against all claims applicable under the Workmen's Compensation Act 1948 (Government of India). This policy shall also

cover the contractor against claims for injury, disability disease or death of his or his sub-contractor's employees, which for any reason are not covered under the Workmen's Compensation Act 1948. The liabilities shall not be less than:

Workmen's compensation As per statutory provisions

Employer's liability as per statutory provisions

4.105.3 Comprehensive Automobile Insurance

This insurance shall be in such a form to protect the contractor against all claims for injuries, disability, disease and death to members of public including the owner's men and damage to the property of others arising from the use of motor vehicles during on or off the site operations, irrespective of the ownership of such vehicles.

4.105.4 Comprehensive General Liability Insurance

4.105.4.1 This insurance shall protect the contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the contractor, his agents, his employees, his representatives and sub-contractors or from riots, strikes and civil commotion. The insurance shall also cover all the liabilities of the contractor arising out of the clause entitled defence of suits under General Terms and Conditions of contracts of this volume.

4.105.4.2 The hazards to be covered will pertain to all the works which and areas where the contractor, his sub-contractors, his agents and his employees have to perform work pursuant to the contract.

4.105.5 The above are only illustrative list of insurance covers normally required and it will be the responsibility of the contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect, in pursuance of the contract.

4.106 UNFAVOURABLE WORKING CONDITIONS

The contractor shall confine all his field operations to those works which can be performed without subjecting the equipment and materials to adverse effects, during inclement weather conditions, like monsoon, storms, etc. and during other unfavourable construction conditions. No field activities shall be performed by the contractor under conditions which might adversely affect quality and efficiency thereof, unless special precautions or measures are taken by the contractor in a proper and satisfactory manner in performance of such works and with concurrence of the engineer. Such unfavorable construction conditions will in no way relieve the contractor of his responsibility to perform works as per the schedule.

4.107 PROTECTION OF MONUMENTS AND REFERENCE POINTS

The contractor shall ensure that any finds such as relic, antiquity, coins, fossils, etc. which he might come across during the course of performance of his works either

during excavation or elsewhere, are properly protected and handed over to the engineer. Similarly the contractor shall ensure that the bench marks, reference points, etc., which are marked out either with the help of engineer or by the engineer shall not be disturbed in any way during the performance of his works. If any work is to be performed which disturb such references, the same shall be done only after these are transferred to other suitable locations under the direction of the engineer. The contractor shall provide all necessary materials and assistance for such relocation of reference points etc.

4.108 WORK AND SAFETY REGULATIONS

- 4.108.1 The contractor shall ensure proper safety of all the workmen, materials plant and equipment belonging to him or the Company or to others, working at or near the site. The contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislation and the engineer-in-charge as he may deem necessary.
- 4.108.2 The contractor will notify well in advance to the engineer -in-charge of his intention to bring to the site any container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals which may involve hazards. The engineer-in-charge shall have the right to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the works and the contractor shall strictly adhere to and comply with such instructions. The engineer-in-charge shall have the right at his sole discretion to inspect any such container or such construction plant/equipment for which material in the container is required to be used and if in his opinion, its use is not safe, he may forbid its' use. No claim due to such prohibition shall be entertained by the owner. Nor the owner shall entertain any claim of the contractor towards additional safety provisions/conditions to be provided for constructed as per engineer-in-charge's instructions.
Further any such decision of engineer-in-charge shall not, in any way, absolve the contractor of his responsibilities, and in case, use of such a container or entry there of into the site area is forbidden by engineer-in-charge, the contractor shall use alternative methods with the approval of engineer-in-charge without any cost implication to Company or extension of work schedule.
- 4.108.3 Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the contractor shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act 1934, Explosives Act 1948, and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the engineer-in-charge. In case, any approvals are necessary from the Chief Inspector (Explosive) or any statutory authorities, the contractor shall be responsible for obtaining the same.

- 4.108.4 All equipment used in construction and erection by contractor shall meet Indian, International Standards and where such standards do not exist, the contractor shall ensure these to be absolutely safe.
All equipment shall be strictly operated and maintained by the contractor in accordance with manufacturer's operation manual and safety instructions and per Guidelines/Rules of the Company in this regard.
- 4.108.5 Periodical Examinations and all tests for all lifting/hoisting equipment and tackles shall be carried out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act 1910 and associated Laws/Rules enforced from time to time. A register of such examinations and tests shall be properly maintained by the contractor and will be promptly produced as and when desired by engineer in charge or by the person authorised by him.
- 4.108.6 The contractor shall be fully responsible for the safe storage of his and his sub-contractors radio-active sources in accordance with BARC/DAE Rules and other applicable provisions. All precautionary measures stipulated by BARC/DAE in connection with use, storage and handling of such material will be taken by contractor.
- 4.108.7 The contractor shall provide suitable safety equipment of prescribed standard to all employee and workmen according to the need, as may be directed by engineer-in-charge who will also have right to examine these safety equipment to determine their suitability, reliability, acceptability and adaptability.
- 4.108.8 Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent person strictly in accordance with the code practices/rules framed under Indian Explosives Act pertaining to handling, storage and use of the explosives.
- 4.108.9 The contractor shall provide safe working conditions to all workmen and employees at the site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings, stairs, ladders etc. shall be erected under the control and supervision of an experienced and competent person. For erection, good and standard quality of material only shall be used by the contractor.
- 4.108.10 The contractor shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the owner or other contractors under any circumstances, whatsoever, unless expressly permitted in writing by the Company to handle such fuses, wiring or electrical equipment.
- 4.108.11 Before the contractor connects any electrical appliances to any plug or socket belonging to the other contractor or owner, he shall:
- a satisfy the engineer that the appliances is in good working condition
 - b inform the engineer of the maximum current rating, voltage and phases of the appliances.
 - c obtain permission of the engineer detailing the sockets to which the appliances may be connected.

- 4.108.12 The engineer will not grant permission to connect until he is satisfied that:
- a the appliance is in good condition and is fitted with a suitable plug.
 - b the appliance is fitted with a suitable cable having two earth conductors, one of which shall be an earthed metal sheath surrounding the cores.
- 4.108.13 No electric cable is in use by the contractor/owner will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.
- 4.108.14 No repair work shall be carried out on any live equipment. The equipment shall must be declared safe by engineer-in-charge and a permit to work shall be issued by engineer-in-charge before any repair work is carried out by the contractor. While working on electric lines/equipments whether alive or dead, suitable type and sufficient quantity of tools will have to be provided by contractor to electricians/workmen/officers.
- 4.108.15 The contractor shall employ necessary number of qualified, full time electricians/ electrical supervisors to maintain in his temporary electrical installations.
- 4.108.16 The contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as safety officer to supervise safety aspects of the equipment and workmen who will co-ordinate with the project safety officer.
- In case of work being carried out through sub-contractor's, the sub-contractor's workmen/employees will also be considered as the contractor's employees/workmen for above purpose. The name and address of such safety officer of contractor will be promptly informed in writing to engineer-in-charge with a copy to safety officer-in charge before he starts work or immediately after any change of the incumbent is made during currency of the contract.
- 4.108.17 In case any accident occurs during the construction/erection or other associated activities undertaken by the contractor thereby causing any minor or major or fatal injury to his employees due to any reason, whatsoever, it shall be the responsibility of the contractor to promptly inform the same to the company's engineer-in-charge in prescribed form and also to all the authorities envisaged under the applicable laws.
- 4.108.18 The engineer-in-charge shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove short comings promptly. The contractor after stopping the specific work, can, if felt necessary, appeal against the order of stoppage of work to the General Manager of the project within 3 days of such stoppage of work and decision of the project G.M in this respect shall be conclusive and binding on the contractor.
- 4.108.19 The contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided in para 4.108.18 above and the period of such

stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

- 4.108.20 The contractor shall follow and comply with all the Company safety rules relevant provisions of applicable laws pertaining to the safety of workmen, employees, plant and equipment as may be prescribed from time to time without demur, protest or content or reservation. In case of any nonconformity between statutory requirement and the Company safety rules referred above, the later shall be binding on the contractor unless the statutory provisions are more stringent.
- 4.108.21 If the contractor fails in providing safe working environment as per the Company safety rules or continues the work even after being instructed to stop work by engineer-in-charge as provided in para 4.108.18 above, the contractor shall promptly pay to the Company, on demand i.e. by the owner compensation at the rate of Rs. 5,000/- per day or part thereof till the instructions are complied with as so certified by engineer -in-charge. However in case of accident taking place causing injury to any individual, the provisions contained in para 4.108.22 shall also apply in addition to compensation mentioned in this para.
- 4.108.22 If the contractor does not take all safety precautions and/or fails to comply with the safety rules as prescribed by the Company or under the applicable laws for the safety of the equipment and plant and for the safety of personnel and the contractor does not prevent hazardous conditions which cause injury to his own employees or employees of other contractors, or the Company employees or any other person who are at site or adjacent thereto, the contractor shall be responsible for payment of compensation under the relevant provisions of the workmen's compensation act and rules framed thereunder or any other applicable laws as applicable from time to time.
- Permanent disablement shall have same meaning as indicated in workmen's compensation act. The compensation mentioned above shall be in addition to the compensation payable to the workmen/employees under the relevant provisions of the workmen's compensation act and rules framed thereunder or any other applicable laws as applicable from time to time.
- In case the owner is made to pay such compensation then the contractor is liable to reimburse the owner such amount.

4.109 CODE REQUIREMENTS

The erection requirements and procedures to be followed during the installation of the equipment shall be in accordance with the relevant Indian Boiler Regulations, ASME codes and accepted good engineering practice, the engineer's drawings and other applicable Indian recognised codes and the laws and regulations of the Government of India.

4.110 FOUNDATION DRESSING AND GROUTING

- 4.110.1 The surfaces of foundations shall be dressed to bring the top surface of the foundations to the required level, prior to placement of equipment/equipment bases on the foundations.
- 4.110.2 All the equipment bases and structural steel base plates shall be grouted and finished as per these specifications unless otherwise recommended by the equipment manufacturer.
- 4.110.3 The concrete foundation surfaces shall be properly prepared by chipping, grinding as required to bring the type of such foundation to the required level, to provide the necessary roughness for bondage and to assure enough bearing strength. All laitance and surface film shall be removed and cleaned.
- 4.110.4 **GROUTING MIX**
The grouting mixtures shall be composed of Portland cement, sand and water. The Portland cement to be used shall conform to ISI No. 269 or equivalent, sand shall conform to ISI No.383/2386 or equivalent.
The grout proportions for flat based where the grouting space does not exceed 35 mm shall be 50 Kg bag of cement to 75 Kg of sand. Only the required quantity of water shall be added so as to make the mix quaky and flowable and the mix shall not show excess water on top when it is being puddled in place. For thicker grout beds upto 65 mm, the amount of sand shall be increased to 105 Kg per bag of cement. Bases which are hollow and are to be filled full of grouting shall be filled to a level of 25 mm above the outside rim with a mortar mix in the volumetric proportions of one bag of cement and 1.5 bags sand and 1.5 part 6 mm granite gravel. An acceptable plasticiser may be added to the grout mixes in a proportion recommended by the plasticizer's manufacturer. All such grouts shall be thoroughly mixed for not less than five minutes in an approved mechanical mixer and shall be used immediately after mixing.
- 4.110.5 **PLACING OF GROUT**
- 4.110.5.1 After the base has been prepared, its alignment and level has been checked and approved and before actually placing the grout a low dam shall be set around the base at a distance that will permit pouring and manipulation of the grout. The height of such dam shall be at least 25 mm above the bottom of the base. Suitable size and number of chains shall be introduced under the base before placing the grout, so that such chains can be moved back and forth to push the grout into every part of the space under the base.
- 4.110.5.2 The grout shall be poured either through grout holes if provided or shall be poured at one side or at two adjacent sides giving it a pressure head to make the grout move in a solid mass under the base and out in the opposite side. Pouring shall be continued until the entire space below the base is thoroughly filled and the grout stands at least 25 mm higher all around than the bottom of the base. Enough care should be taken to avoid any air or water pockets beneath the bases.
- 4.110.6 **FINISHING OF THE EDGES OF THE GROUT**

The poured grout should be allowed to stand undisturbed until it is well set. Immediately thereafter, the dam shall be removed and grout which extends beyond the edges of the grout shall then be pointed and finished with 1:2 cement mortar pressed firmly to bond with the body of the grout and smoothed with a tool to present a smooth vertical surface. The work shall be done in a clean and scientific manner and the adjacent floor spaces, exposed edges of the foundations, and structural steel and equipment base plates shall be thoroughly cleaned of any spillage of the grout.

4.110.7 CHECKING OF EQUIPMENT AFTER GROUTING

After the grout is set and cured, the contractor shall check and verify the alignment of equipment, alignment of shafts of rotating machinery, the slopes of all bearing pedestals, centering of rotors with respect to their sealing bores, couplings, etc. as applicable and the like items to ensure that no displacement had taken place during grouting . The values recorded prior to grouting shall be used during such post grouting check-up and verifications. Such pre and post grout records of alignment details shall be maintained by the contractor in a manner acceptable to the engineer.

4.111 SHAFT ALIGNMENTS

All the shafts of rotating equipment shall be properly aligned to those of the matching equipment to as perfect accuracy as practicable. The equipment shall be free from excessive vibration so as to avoid over-heating of bearings or other conditions which may tend to shorten the life of the equipment. All bearings, shafts and other rotating parts shall be thoroughly cleaned and suitably lubricated before starting.

4.112 DOWELING

All the motors and other equipment shall be suitably doweled after alignment of shafts with tapered machined dowels as per the direction of the engineer.

4.113 CHECK OUT OF CONTROL SYSTEMS / POWER SUPPLY

After completion of wiring, cabling furnished under separate specifications and laid and terminated by the owner, the contractor shall check out the operation of all control systems for the equipment furnished and installed under these specifications and documents. The contractor shall get the drawings pertaining to the control system, power supply etc. approved from Directorate General of Mine Safety (DGMS) or any other appropriate authority as necessary, wherever required as per the rules and regulations of the of Indian Mines Act governed by D.G.M.S.

1.114 COMMISSIONING SPARES

The contractor shall make arrangement for an adequate inventory at site of necessary commissioning spares prior to commissioning of the equipment furnished and erected so that any damage or loss during this commissioning activities necessitating the

requirements of spares will not come in the way of timely completion of the works under the contract.

4.115 **CABLING**

- 4.115.1 All cables shall be supported by conduits or cable tray run in air or in cable channels. These shall be installed in exposed runs parallel or perpendicular to dominant surfaces with right angle turn made of symmetrical bends or fittings. When cables are run on cable trays, they shall be clamped at a minimum interval of 2000 mm or otherwise as directed by the engineer.
- 4.115.2 Each cable, whether power or control , shall be provided with a metallic or plastic of an approved type, bearing a cable reference number indicated in the cable and conduit list (prepared by the contractor), at every 5 metre run or part there of and at both ends or the cable adjacent to the terminations. Cable routing is to be done in such a way that cables are accessible for any maintenance and for easy identification.
- 4.115.3 Sharp bending and kinking of cables shall be avoided. The minimum radii for PVC insulated cables 1100 V grade shall be 15D, where D is the over all diameter of the cable. Installation of other cables like high voltage, coaxial, screened, compensating, mineral insulated shall be in accordance with the cable manufacturer's recommendations. Wherever cables cross roads and water, oil, sewage or gas lines, special care should be taken for the protection of the cables in designing the cable channels.
- 4.115.4 In each cable run some extra length shall be kept at a suitable point to enable one to two straight through joints to be made should the cable develop fault at a later date.
- 4.115.5 Control cable terminations shall be made in accordance with wiring diagrams, using identifying codes subject to engineer's approval. Multicore control cable jackets shall be removed as required to train and terminate the conductors. The cable jacket shall be left on the cable, as far as possible, to the point of the first conductor branch. The insulated conductors from which the jacket is removed shall be neatly twined in bundles and terminated. The bundles shall be firmly but not tightly tied utilising plastic or nylon ties or specially treated fungus protected cord made for this purpose. Control cable conductor insulation shall be securely and evenly cut.
- 4.115.6 The connectors for control cables shall be covered with a transparent insulating sleeve so as to prevent accidental contact with ground or adjacent terminals and shall preferably terminate Elmex terminals and washers. The insulating sleeve shall be fire resistant and shall be long enough to over-pass the conductor insulation. All control cables shall be fanned out and connection made to terminal blocks and test equipment for proper operation before cables are corded together.

SECTION 5

**SCOPE OF WORK & TECHNICAL SPECIFICATION
FOR
CIVIL AND STRUCTURAL WORKS, MECHANICAL WORKS
&
ELECTRICAL WORKS**

BRIEF SCOPE OF WORK & TECHNICAL SPECIFICATIONS

PART – 5A CIVIL WORKS

1. **Detail of Work & Specifications:** -

This volume contains scope of civil work and technical specifications for the bidder with respect to “**Design**, Supply, Construction, Installation, and Commissioning of Water Treatment Plant (WTP) of 400 KLD capacity (51 m³/hr, working 8 hrs in two shifts) complete in all respects. The tender is for turnkey job and the responsibility of the contractor will include all preparatory work, levelling and dressing of site, detailed design(hydraulic & structural), procurement, excavation work including de-watering and lowering of sub-soil water if required, disposal of all surplus earth at suitable site, civil works, testing and commissioning of WTP and maintenance during trial run /defect liability period for 12 months and additional 5 years of Comprehensive operation & Annual Maintenance Contract (COAMC).

2. **Proposed Site for WTP Works:** The proposed WTP shall be installed in the existing CMPDI, Colony Complex, Ranchi. The dimensions of the proposed site is approximately 15m X 15m. Site plan can be seen in the office of the GM(Civil/TE), CMPDI, Kanke Road, Ranchi. However, successful tenderer shall finalize the site dimensions before designing the WTP.
3. **Estimation of raw water flow:** WTP will be designed for a flow of 400 KLD. The treatment plant shall be designed for a flow rate of minimum 51 m³/hr considering losses. The bidder shall design the system for a total 8 hours of working in two separate shifts (e.g. morning 4 hrs and afternoon 4 hrs working). However, any modification(s) proposed by the successful tenderer shall be subjected to acceptance and approval by the Employer.
4. **Design & Drawings:** A basic scheme for construction of Water Treatment Plant (WTP) is described in the scope of work. The bidder shall quote his rates based on the scope of work. However, this shall not absolve the bidder from responsibility of performance of the assets created in this contract. The bidders are required to furnish the following documents at the time of award of contact as well as for technical qualification.
 - a) Detail design of the water treatment plant including sizing of the treatment units.
 - b) Proposed process flow diagram for Water Treatment Plant
 - c) Site Plan and Flow diagram/ Plan layout/ Civil Structural drawings.

- d) Hydraulic Profile Diagram through the works showing the designed hydraulic levels at the peak design flow rates.
- e) General arrangement(GA) drawing of proposed Water Treatment facility on a site plan with finished contours, showing all structures including tanks, pumps, pipelines, valves, standby equipment, control lines and the like. The drawing shall indicate all details including cutouts towards entry/exit points of the facilities as per requirement.
- f) Complete design details of mechanical, electrical works and other details as per the requirement of the system.
- g) Detailed dimensions and locations of all civil components, openings, cut outs, plinths, fixings, fittings, flanges, mountings, steps, ladders etc.
- h) Detailed dimensions and exact locations of all other items of plant including mechanical & electrical items
- i) Details of internal and external surface finishing, protective coatings and lining.
- j) Any other design/ drawing as desired by the Employer

5. **The Scope of work for successful bidder:-**

Brief Scope of Work

The scope of work under this tender shall include the following:

- Program schedule submission
- Soil investigation including soil resistivity test and other tests as per requirement , if required as per instruction Engineer in charge.
- Detailed survey
- Sampling of raw water and Laboratory Tests
- Planning, Design and engineering, Submission of drawings and design calculations including all working manuals, Getting approval of drawings and designs, Record of Drawings
- Setting Out
- Demolition/rectification of existing facilities, if any, as per requirement
- Pre-construction anti-termite treatment
- Levelling of site
- Execution of all civil and structural works including infrastructural facilities
- Dove-tailing with existing facilities
- Construction & Supply including transportation of plant and machinery to site
- Erection of equipment (mechanical including process equipment and electrical) including laying of pipe lines with all required structures

- Testing and commissioning, elimination of all teething troubles, performance tests
- Five years plant operation including quarterly testing of raw water and treated water, supply of all necessary consumables and labour. The bidder should provide details of the manpower required for the operation and maintenance of WTP.
- Handing over of the plant for further operation by the employer at the end of fifth year operation period
- Operation, Maintenance of all plant and machinery for five years Defect Liability Period (DLP or Comprehensive operation & annual maintenance contract (COAMC))
- Training of employer staff and suggesting log sheet for monitoring

This being a turn-key work, all items of works needed for completion of the job in all respect and successful operation of the water treatment plant for five years post construction/ performance tests/acceptance of plant for operation shall be deemed to be covered in the Scope of Work whether specifically mentioned herein or not.

Due consideration shall be given for economy, architecture and functional utilities. The tender drawings of this NIT indicate functional and architectural requirements. The successful bidder has to comply with these requirements and submit detail drawings for Employer's approval. Submission of all documents required according to the contract parameter. Submission of a guarantee that the treated water will correspond to the requirements given below.

In case of concrete structures, designed concrete will be minimum M-30 or more and steel Fe-500 grade for all Water retaining structures. For all other structures designed concrete will be minimum M-20 or more and steel Fe-500d grade.

Alternatively

In case of Steel with FRP package Water Treatment Plant, relevant ASTM or BS codes shall be applicable.

Design and engineering of the WTP to be operator friendly.

6. Raw water & treated Water characteristics:

The water supplied to residential houses and service building in CMPDIL complex, Ranchi shall be treated by such a treatment methodology to meet the relevant standards for domestic consumption.

The raw water characteristics assumed for designing is as follows: -

Parameters	Influent sewage Characteristics
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pH	7-8.0
Turbidity	<5
TSS mg/l	110
TDS mg/l	150
BOD mg/l	< 2
Total hardness mg/l	120
Fluorides mg/l	<1.4
Total Coliform (MPN/100ml)	1800

The design of WTP shall be based on the actual test report of the raw water samples collected from various sources. The raw water sample collection and its analysis is within the scope of work of the successful tenderer. The successful tenderer will have to undertake the laboratory analysis of the raw water samples in association with the Employer or his representative, if so desired by employer. The analysis report shall be submitted by the contractor for approval/acceptance of the employer. However, the raw water quality to be considered for the design of the WTP shall not be less than those given in the table above. The treated water from the Water Treatment Plant (WTP) shall meet the relevant standards of CPCB/SPCB for domestic consumption.

7. Sludge Management:

The sludge from the WTP will be transferred to the sludge drying beds for drying and for further disposal as per the CPCB/SPCB guidelines/ Hazardous and Other Wastes [Management and Transboundary Movement] Amendment Rules, 2016. Testing of sludge generated from WTP shall be conducted as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for ascertaining the amount of toxicity present in it. Accordingly, disposal of the sludge shall be done as per prevailing guidelines applicable by the successful tenderer.

8. DESIGN BASIS, TREATMENT SCHEME & TREATMENT PROCESS

Adherence to Indian Standards

All designs, drawings, construction, fabrication, testing, operation, materials etc. shall be in strict conformity as per relevant and latest IS/BIS Code of practice, CPWD/NBO provisions & guidelines and latest MoEF&CC/CPCB/State pollution control board/CPHEEO standards & guidelines. Wherever no Indian Standard is available other International Standards may be followed only on approval from the Employer.

Design of WTP

The design components (Treatment Scheme, treatment Process, process units etc.) specified in this Tender document are the minimum requirement. The design of the WTP is solely the responsibility of the successful tenderer. Modification(s)/addition/deletion in the design component (if any) may be allowed only after suitable justification from the successful tenderer and on approval from the Employer. However, this does not absolve the contractor from his responsibility of giving satisfactory performance and meeting desired discharge standards as specified in tender document and relevant IS codes.

TREATMENT SCHEME:

Sr. No.	Particulars
1.	Existing Collection Tank - Not required to provide
2.	Raw water feed pumps
3.	Alum/Poly Dosing System
4.	Lamella Clarifier/Plate Settler/Tube Settler (with flash mixer and flocculation arrangement)
5.	Clarified Water Sump
6.	Filter Feed Pumps
7.	Pressure Sand Filter/MGF
8.	Activated Carbon Filter
9.	Sodium Hypo chloride dosing system
10.	Sludge drying beds
11.	Feeding of required diameter CI pipe to the existing treated water Tank (including laying and installation)
12.	Interconnecting Piping and Valves
13.	Electrification (tapping point needs to be specially located at distance)
14.	Sludge Transfer Pump
15.	Control Panel
16.	Pump House

TREATMENT PROCESS:

The raw water supplied from the Kanke dam is stored in an existing raw water collection sump. The water shall then be pumped from the existing collection sump

to the proposed flash mixer (MS Tank) where coagulants like alum/Poly electrolyte shall be mixed into the water. The water shall then be passed through a flocculation tank (MS Tank) followed by Lamella Clarifier/Plate Settler/Tube Settler (with flash mixer and flocculation arrangement) which is an inclined plate clarification system in a single MS tank. During this time solid settle onto the plates and eventually fall to the bottom of the vessel. At the bottom of the vessel a hopper or funnel collects these particles as sludge. Sludge may be continuously or intermittently pumped out by means of sludge transfer pumps to a sludge drying beds. Above the inclined plates all particles have settled and clarified water is produced which is drawn off into an outlet channel. The clarified water exits the system in an outlet stream which is collected in a clarified water tank.

The water collected in the clarified water tank shall further be passed through proposed Pressure Sand Filter(PSF) and Activated Carbon Filter(ACF) with the aid of filter feed pumps. The pressure sand filter shall remove any residual suspended solids in the water and activated carbon filter shall remove residual colour and odour from the water. The water shall be further disinfected with the help of chlorine/Sodium Hypochlorite dosing system and stored in a treated water tank for further use.

9. CIVIL STRUCTURE:

Sr.No.	DESCRIPTION	SIZE/CAPACITY	QTY. Nos.	M.O.C.
1	Raw Water Storage Sump	-	1	Existing
2	Flash Mixer	Volume: 0.85 m3 Dimensions: As per vendor + 0.3 m free board	1	MS FRP
3	Flocculation Tank	Volume: 8.5 m3 Dimensions: As per vendor + 0.3 m free board	1	MS FRP
4	Lamella Clarifier/Plate Settler/Tube Settler	Flow Rate: 51 m3/hr Dimension: As per vendor design+ 0.3 m free board Plate Spacing :50mm Plate Inclination angle:	1	MS FRP

		50 to 60° to horizontal																										
5	Clarified Water Sump	51 m3 + 0.5 m free board.	1	MS FRP																								
6	Treated Water Sump	-	1	Existing																								
7	Sludge Drying Bed	34 m2 surface area x Depth as per vendor design + 0.3 m free board.	2	RCC M 30																								
8	Foundations for equipment's & pumps	By Vendor	Lot	RCC M30																								
9.	<p>Pump House</p> <p>Table : Specification of the Pump House:</p> <table border="1"> <thead> <tr> <th>Sl.</th><th>Items</th><th>Brief Description</th></tr> </thead> <tbody> <tr> <td>1</td><td>Type of Structure</td><td>R.C.C. Frame Structure.</td></tr> <tr> <td>2</td><td>Plinth Height</td><td>600 MM from Adjacent Finished Ground Level</td></tr> <tr> <td>3</td><td>Floor Height</td><td>3300 MM (Floor to roof)</td></tr> <tr> <td>4</td><td>Type of Roofing</td><td>RCC Flat Roof with proper drainage arrangement.</td></tr> <tr> <td>5</td><td>Plastering</td><td></td></tr> <tr> <td>a)</td><td><i>Rough side</i></td><td>15 MM. Thick using 1:6 cement mortar</td></tr> <tr> <td>b)</td><td><i>Smooth side</i></td><td>12 MM. Thick using 1:6 cement mortar</td></tr> </tbody> </table>	Sl.	Items	Brief Description	1	Type of Structure	R.C.C. Frame Structure.	2	Plinth Height	600 MM from Adjacent Finished Ground Level	3	Floor Height	3300 MM (Floor to roof)	4	Type of Roofing	RCC Flat Roof with proper drainage arrangement.	5	Plastering		a)	<i>Rough side</i>	15 MM. Thick using 1:6 cement mortar	b)	<i>Smooth side</i>	12 MM. Thick using 1:6 cement mortar	4 m x 3 m x 3.5 m(ht.)	Lot	<p>Foundations, columns, beams shall be of RCC (M-25). Foundations shall be underlaid by min. 100mm thick Mud mat with PCC 1 : 4 : 8.</p>
Sl.	Items	Brief Description																										
1	Type of Structure	R.C.C. Frame Structure.																										
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b)	<i>Smooth side</i>	12 MM. Thick using 1:6 cement mortar																										

	c)	<i>Ceiling</i>	6 MM. Thick using 1:4 cement mortar			
6		<i>Walls</i>				
	a)	<i>External</i>	Full brickwork using 1:6 cement mortar			
	b)	<i>Internal</i>	Half brickwork using 1:4 cement mortar			
7		<i>Shelves/ Counter</i>	As required			
8		<i>Flooring</i>				
	a)	<i>Rooms</i>	Ironite/ ferrosite flooring with appropriate sub-grade			
	b)	<i>Toilet</i>	nil			
	c)	<i>Dado</i>	NA			
	d)	<i>Counter</i>	nil			
9		<i>Frame & Shutter</i>				
	a)	<i>Doors</i>	Angle iron frame, 35 MM. thick flush door shutters (one side decorative) and required fittings.			
	b)	<i>Cupboards</i>	As required			
	c)	<i>Toilet Doors</i>	NA			
10		<i>Windows</i>	2 track Aluminum frame with 4 MM. thick glass & required fittings, M.S. Grill			

	11	Wall Finishing			
	a)	POP/Putty			
		2 MM. thick putty on Internal & External walls			
	b)	External			
		Weather Coat over a coat of cement primer			
	c)	Internal			
		Oil Bound Distemper over a coat of cement primer			
	12	Painting			
	a)	Wood work			
		Synthetic enamel paint over a coat of ready mixed primer			
	b)	Steel work			
		Synthetic enamel paint over a coat of ready mixed primer			
	13	Roof Treatment			
		Roof shall have minimum gradient of 1:100. Appropriate water proofing admixtures to be added with concrete. Provision of Gola, adequate rain water down comer to be kept.			
	14	Water Supply			
	a)	Pipe	NA		

	b)	<i>Fittings</i>	NA			
	15	Sanitary				
	a)	<i>Pipe</i>	NA			
	b)	<i>Fittings</i>	NA			
	c)	<i>Single user toilet</i>	nil			
		<i>i) Total no. Fixtures</i>	n/a			
	d)	Multi user toilet	Nil			
		<i>i) Total no. Fixtures</i>	NA			
	16	Electrical				
	a)	<i>Wiring</i>	Concealed Wiring			
	b)	<i>Fitting & Fixtures</i>	As per requirement			

10. EQUIPMENT WITH SPECIFICATIONS REQUIRED FOR TREATMENTS

10.1 RAW WATER TRANSFER PUMPS

Providing & fixing fully Single Stage, High Speed, Horizontal, Centrifugal, Monobloc/coupled pumps for transferring raw water from raw water sump to flash mixer unit. The pump shall have complete construction, induction motor including pressure gauge, lifting arrangement for the pump, all necessary piping, valves, level controller, probes, cable etc. and other accessories as required

Make	KSB/Crompton/Groundf os/M&P/CRI or Equivalent
Nos.	2 nos. (1W+1S)
Type	Single Stage, High Speed, Horizontal, Centrifugal, Monobloc/coupled pumps
Discharge of Each Pump	51.0 m ³ /hr (minimum)
Head	As per requirement
RPM	As required
Power requirement	As required

10.2 FILTER FEED PUMPS

Providing & fixing fully Single Stage, High Speed, Horizontal, Centrifugal, Monobloc/coupled pumps for pumping clarified water from clarified water sump to pressure sand filter. The pump shall have complete construction, induction motor including pressure gauge, lifting arrangement for the pump, all necessary piping, valves, level controller, probes, cable etc. and other accessories as required

Make	KSB/Crompton/Groundf os/M&P/CRI or Equivalent
Nos.	2 nos. (1W+1S)
Type	Single Stage, High Speed, Horizontal, Centrifugal, Monobloc/ coupled pumps
Discharge of Each Pump	51.0 m ³ /hr (minimum)
Head	As per requirement
RPM	As required
Power requirement	As required

10.3 PRESSURE SAND FILTER

Providing and fixing vertical Multi-grade Medi a Pressure Filter fabricated from high performance M.S plate of minimum 6mm thick for shell & 8mm thick for dished ends (Quality of Steel as per IS: 2062 Grade B, thickness as per ASME Section 8, with supporting calculations from vendor) internally treated with epoxy, complete with initial charge of media, M.S face piping, valves, accessories, external painting with 2 coats of red oxide primer and enamel paint, testing and commissioning complete. Filter media should be Quartz sand of different grades and sizes.(Working Pressure : 2.5 Kg/cm² ,Design Pressure : 3.5 Kg/cm², Test Pressure : 6 Kg/cm²)

Flow	Down Flow
Type	Strainer Type
Nos	1
Size	As vendor design
Flow Rate	51.0 m ³ /hr (minimum)
filtration Rate	10m ³ /m ² /hr(minimum)
MOC of vessel	MSEP
Media	Sand, Gravel

10.4 ACTIVATED CARBON FILTER

Providing and fixing vertical Activated Carbon Filter fabricated from high performance M.S plate of minimum 6mm thick for shell & 8mm thick for dished ends (Quality of Steel as per IS: 2062 Grade B, thickness as per ASME Section 8, with supporting calculations from vendor) internally treated with epoxy, complete with initial charge of media, M.S face piping, valves, accessories, external painting with 2 coats of red oxide primer and enamel paint, testing and commissioning complete. Filter media should be Pebbles & sand of different grades and sizes including Activated carbon .(Working Pressure : 2.5 Kg/cm² ,Design Pressure : 3.5 Kg/cm², Test Pressure : 6 Kg/cm²)

Flow	Down Flow
Type	Strainer Type
Nos	1
Size	As vendor design
Flow Rate	51.0 m ³ /hr (minimum)
filtration Rate	12m ³ /m ² /hr(minimum)
MOC of vessel	MSEP
Media	Activated Carbon,Gravel

10.5 SLUDGE TRANSFER PUMPS

To transfer sludge to sludge drying beds

Make	Roto/Tushaco/Rotomech /Equivalent
Nos.	2 nos. (1W+1S)
MOC	CI
Discharge of Each Pump	1 m ³ / Hr
Head	As per requirement
RPM	As required

10.6 HYPO DOSING SYSTEM

Hypo dosing system shall be provided at the outlet of the filtered water for disinfection purpose. This system will comprise of dosing pump with suitable. The dosing tank shall be HDPE with minimum holding capacity of 200 litres. The dosing solution from the preparation tank shall be pumped by electronic metering type pump.

Capacity of Pump	40lph (minimum)
Nos.	2 nos. (1W+1S)
MOC	PP
Make of Pump :	Prominent / Milton roy / grandiose/Equivalent
Tank volume :	200 Lts (2 Nos) (minimum)
MOC of Tank	HDPE
Make of Tank	Sintex/Equivalent

10.7 ALUM DOSING SYSTEM /Poly Electrolite Dosing

Alum/Poly dosing system shall be provided at the inlet of flash mixer and flocculation tank for coagulation. The dosing solution from the preparation tank shall be pumped by electronic metering type pump. An mixing arrangement consisting of motor connected to vertical shaft with impeller arrangement shall be provided for mixing alum blocks/poly with water. No. of blades, Shaft length & diameter etc. as per design of system. Appropriate fluid contact parts in SS304 (min.), Motor of suitable capacity as per design Drive Details:

220 Volt, 50 Hz. Protection IP 55

The dosing tank shall be HDPE with minimum holding capacity of 250 litres.

Capacity of Pump	50lph (minimum)
Nos.	2 nos. (1W+1S)
MOC	PP
Make of Pump :	Prominent / Milton roy / grandiose/Equivalent
Tank volume :	250 Lts (2 nos) (minimum)
Mixing Arrangement	Impeller blade with vertical shaft arrangement.
MOC of Tank	HDPE
Make of Tank	Sintex/Equivalent

10.8 ELECTROMAGNETIC FLOW METER

Flow meter should be electromagnetic type with capacity of 51cum/hr. The flow meter should be installed at the delivery line of WTP plant to calculate the total flow outlet of the plant. The flow meter shall be flanged connection.

Capacity :	51.0 m ³ /hr (minimum)
Line Size	As required
Protection	IP 68
Make	Forbes Marshall / ABB Capstan / Kranti / Arad / Equivalent

10.9 FLOCCULATOR MECHANISM: suitable for a total raw water discharge coming in @ 51 m³/hr

Radial Flow type Paddle Design of suitable capacity with suitable no. of Blades. Size of Flocculation Well and Material of Impeller/Shaft, its Speed(RPM) and Speed Reduction Ratio shall be as per design/system requirement. Supporting structure shall be provided as per system requirement.

Painting: All Parts other than SS will be painted with one coat of red oxide primer and two coats of Epoxy/High Build Chlorinated Rubber Paints

Flow rate:	51.0 m ³ /hr (minimum)
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10.10 Agitator for Reaction Tank (Flash Mixer) Vertical ally Top Mounted of suitable capacity with suitable Impeller blade and having suitable Agitator Rotation Speed (RPM). Impeller diameter, No. of blades, Shaft length & diameter etc. as per design of system. Appropriate fluid contact parts in SS304 (min.), suitable for a total raw water discharge coming in @ 51 m³/hr

Motor of suitable capacity as per design Drive Details: 220 Volt, 50 Hz. Protection IP 55

Capacity:	51.0 m ³ /hr (minimum)
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10.11 ELECTRICAL CONTROL PANEL ALONG WITH WIRING

Supply, installation testing and commissioning of LT power panels as per general specification clause 11.2. The panel shall be manufactured in conformance to requirement of local electricity board.

Outgoing feeders:

Feeder requirement shall be all the electro-mechanical equipment as per the design of WTP. For e.g (Raw Water Transfer Pumps, sludge transfer pump, filter feed pump, treated water pump, Flash Mixer, Flocculator Mechanism, Dosing Pump etc.)

11. GENERAL SPECIFICATIONS

11.1 SPECIFICATIONS FOR CIVIL ITEMS

11.1.1 Adherence to Indian Standards:

All designs, drawings, construction, fabrication, testing, operation, materials etc. shall be in strict conformity to relevant and latest IS/BIS Code of practice and CPWD/NBO provisions & guidelines and CPHEEO Manual on Sewerage & Sewage Treatment. Wherever no Indian Standard is available British, American, German, Soviet or other International Standards may be followed only on approval from the Employer.

11.1.2 Workmanship

All workmanship, materials and work items shall conform to relevant Indian Standards. In case of items not covered by Indian Standards, other relevant

Standards shall be followed. In case of items not covered either by Indian Standards or other relevant Standards, the CPWD practices shall be followed.

11.2 ELECTRICAL WORK

1. Conformity to IE Act, IE Rules and Standards:

All electrical works shall be carried out in accordance with the provision of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended upto date.

2. Quality of Materials:

All materials and equipment supplied by the contractor shall be new. They shall be of such design, size and materials as to be satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

Only quality materials of reputed make will be used in work.

3. Conformity to Standards:

All components shall conform to relevant Indian Standard Specifications, wherever existing. Materials with ISI certification marks shall be preferred.

4. Workmanship:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.

5. Fabrication in reputed workshop

Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, powder/ epoxy paint plant, proper testing facility etc.

6. Commissioning on completion

After the work is completed, it shall be ensured that the installation is tested and commissioned.

7. Guarantee

The installation shall be handed over to the Department after necessary testing and commissioning. The installation will be guaranteed against any defective design/ workmanship. Similarly the materials supplied by the contractor will be guaranteed against any manufacturing defects, inferior quality. The guarantee period will be for a period of 12 months from the date of handing over to the Department. Installation/equipment or components thereof shall be rectified /repaired to the satisfaction of the Engineer-in-charge.

8. Switch room

A switch room shall be provided for the control of LT switchgears, panels etc.. This switch room shall receive LT supply for which suitable pipe/trench provision shall be kept for cable entry.

9. System of supply

All electrical equipment, accessories shall be suitable for voltage and frequency of supply.

10. Lighting

Provision shall be made for proper and adequate lighting in the switch room and in the plant using preferably LED luminaires.

11. Electrical Power Distribution and Wiring

The electrical power will be received and distributed from the switch room through following means.

- (i) Cabling and switchgear to receive power.
- (ii) Power flows from the busbar to MCC and DBs and then to wiring.
- (iii) Dedicated circuits for different loads such as lighting, motors, power plug loads shall be provided.

Loads like water pump sets, motor loads shall be fed by independent cable of suitable capacity fed from properly designed LT power panels with suitably designed switchgear having necessary control and safety features.

The distribution system/wiring system shall essentially consists of provision of cables, switchgear, earthing, laying of pipes/conduits etc.(in surface/recess) based on proper detailed designing to decide on various sizes/ capacities of these components and various controls and safeties involved to provide an efficient, reliable, safe and adequate electrical distribution and wiring system.

12. System of Distribution and Wiring:

- (i) The wiring shall be done from a distribution system through main and/or branch distribution boards. The system design and location of boards shall be properly worked out.
- (ii) Each main distribution board and branch distribution board shall be controlled by an incoming circuit breaker/ linked switch with fuse. Each outgoing circuit shall be controlled by a circuit breaker/switch with fuse.
- (iii) As far as possible DBs shall be separate for light and power.
- (iv) Only MCCB/ MCB/HRC fuse type DBs shall be used.
- (v) 'Power' wiring shall be kept separate and distinct from light wiring, from the level of circuits, i.e., beyond the branch distribution boards. Conduit for light/power wiring shall be separate.
- (vi) Each MDB/DB/Switch Board will have reasonable spare outgoing ways for future expansion.
- (vii) Balancing of 3-phase circuit shall be done.

13. Ratings of Outlets

- (i) Ceiling fans shall be rated at 60W. Exhaust fans, LED tube fitting, LED street lighting, LED flood lighting etc. shall be rated according to their capacity. Control gear losses shall also be considered as applicable.
- (ii) 6A and 16A socket outlet points shall be rated at 100W and 1000W respectively.

14. Capacity of Circuits:

- (i) Lighting circuit shall feed light/fan points. Each circuit shall not have more than 800 Watt connected load or more than 10 points whichever is less.
- (ii) Power circuit will have only one outlet power circuit.
- (iii) Load more than 1 KW shall be controlled by suitably rated MCB and cable size shall be decided as per calculations.

15. Socket Outlets:

- (i) Socket outlets modular type shall be 6A, 3 pin, 16 A, 3 pin or 16/6 A, 6 pin. The third pin shall be connected to earth through protective (loop earthing) conductor.

16. Cables:

- (i) Copper conductor cable only used for submain/circuit/point wiring.
- (ii) Minimum size of wiring :
 - a. Light wiring : 1.5 sq. mm.
 - b. Power wiring :4.0 sq. mm.
- (iii) Insulation : Copper conductor cable shall be PVC insulated conforming to BIS specification.

17. Outdoor Fittings

Outdoor street light fitting shall conform to class IP 65 or more.

18. Earthing Requirements

- (i) The outlet boxes and metallic accessories, shall be mechanically and electrically continuous by proper screwed joints, or by double check nuts at terminations.
- (ii) A protective (loop earthing) conductor(s) shall be laid inside the conduit between the metallic switch boxes and distribution switch boards and terminated with proper earth lugs/terminals. Only PVC insulated copper conductor cable of specified size green in color shall be used.

19. Conduits:

- (i) All non-metallic conduit pipes and accessories shall be of suitable material complying with IS 2509 ; 1973 and IS 3419 : 1989 for rigid conduits and IS 9537 (Part 5) : 2000 for flexible conduits. The rigid conduit pipes shall be ISI marked.

20. Cable:

The PVC insulated copper conductor cables of 650/1100 V grade shall conform to IS 694 ; 1990.

21. Specification of LT Cubicle Panel:

- (i) Cubicle panel shall be floor mounted b(on base frame) totally enclosed. The general construction shall conform to IS 8623 : 93. The design shall include all provisions for safety of operating and maintenance personnel. Degree of protection shall be IP-42 for indoor application.
- (ii) The panel shall be compartmentalized type having space and arrangement for incoming cable, incoming switchgears, insulated and properly supported compartmentalized busbars, outgoing compartmentalized switchgear,, busbar supports, cable alleys of suitable size for cabling routing, support and terminations, inter-connection between busbars and switchgear with auxiliary busbar/ insulated conductors/strips etc. Also the panel will be provided with necessary instrumentation like Ammeter, Voltmeter, phase indicating lamps, other required instruments, wiring , fuses etc.
- (iii) It will be fabricated out of CRCA sheet not less than 2.0 mm thick for load bearing members and 1.6 mm for doors of LT panels. The framework may be angle iron/channel/ bolted type construction.
- (iv) Arrangement for incoming/outgoing Cable Termination. Removable gland plate shall be provided for each cable entry. Cable support arrangement to be provided inside cable alley so that cables are neatly arranged and fixed. From each outgoing switch, insulated strip/conductor of suitable size to be provided upto suitable terminal block, which will receive incoming / outgoing cable termination.
- (v) Earthing: 2 nos. of 20 x 3 mm copper strip for LT panels shall be fixed all around the panel connected o 2 nos. earth bus copper strips connected to incoming earth conductors.

22. Earthing:

- (i) For details IS code of practice on Earthing (IS 3043 : 1987) shall be referred to.
- (ii) Earthing requirements are laid down in Indian Electricity Rules, 1956, as amended from time to time and in the Regulations of the Electricity Supply Authority concerned. These shall be complied with.
- (iii) Earthing conductor and sizes:
The earthing conductor (protective conductor from earth electrode upto the main earthing terminal/earth bus, as the case may be) shall be of the same material as the electrode and in the form of wire or strip. The size of the earthing conductor shall not be less than the following.
 - (a) 25 mm X 4 mm in case of G.I strip or
 - (b) 20 mm x 3 mm in the case of copper strip.
- (iv) In the case of plate earth electrode, a watering pipe 20 mm diameter medium class shall be provided and attached to the electrode. A funnel with

wire mesh shall be provided on the tpp of the pipe for watering the earth. The watering funnel attachment shall be housed in a masonry enclosure of size not less than 30 cm x 30 cm x 30 cm. A cast iron/ MS frame with MS cover , 6 mm thick and having locking arrangement shall be suitably embedded in th masonry enclosure.

- (v) The earthing conductor from the electrode upto the building shall be protected from mechanical injury by a medium class, 15 mm dia GI pipe in the case of wire and by 40 mm dia medium class GI pipe in the case of strip. The protection pipe in ground shall be buried at least 30 cm deep.
- (vi) The earthing conductor shall be securely connected at the other end to the earth stud/earth bar provided on the switch board by bolt, nut and washers in case of strip conductor and crimped lug, bolt, nut and washers in the case of wire.
- (vii) Two protective conductors shall be provided for a switchboard carrying a 3-phase switchgear thereon.
- (viii) Pit is to be dug of required dimensions and depth for the earthing at site and laying of galvanized cast iron/ copper earth plate The earthing connection to equipment/ switchgear and earthing electrode shall be made by strip or double run of earth wire with nut bolting to plate where ever required in an approved manner. Pit shall then be filled with screened soil with alternate layer of coal and salt..
- (ix) The value of the earth electrode shall be measured by earth tester.

23. Bus bar:

The bus bar chamber shall be fabricated from 16 SWG CRCA sheet with necessary clearance on al sides duly painted with one coat of red oxide /primer and 2 coats of superior quality enamel paint of required shade.2 nos. of earth studs shall be welded to the chamber The chamber shall be fixed on 25 x 25 x 4 mm angle iron frame to make it sturdy.The chamber shall have minimum one hole per bus bar for fixing incoming cable and required holes for the outgoing cable. The size of bar either of aluminium/copper shall be of adequate capacity .

24. Power Cable:

The PVC armoured cable aluminium/copper for working voltage upto and including 1100 volt shall conform to IS 1545 : Part 1 : 1988.

The cable shall be laid along with bare GI wire of appropriate gauge on surface or in underground trench. In switch room cable shall be laid in trench on cable trays. Provision shall be made for c.c. trench as required for laying of cable.

25. Excavation:

Excavation in all types of soil, strata and making trench upto the required depth (750 mm from cable top for cable upto 1100 Volts) for laying the cable, covering the cable with specified material and finishing the same by making the surface proper with crown on top of the trench.

26. Motors

The three phase induction motors shall conform to IS 325 : 1996.

27. Arrangement for power supply and earthing for the switch room

Power supply for the switch room shall be arranged from Feeder Pillar by laying about 200 m length of 3 1/2 (Three and half) core armoured aluminium conductor cable of adequate size below ground.

2 nos of earthing with Galvanised cast iron plate of size 60 x 60 x 0.6 cm shall be provided outside the switch room.

11.3 MECHANICAL WORKS

1 GENERAL

All the equipment and their component parts shall comply with the relevant Indian Standards laid down so far. Where such standards are not available, these shall comply with the equivalent internationally accepted standards like British/ American/ DIN etc. with necessary modification as required to suit Indian conditions.

The selection, design & manufacture/ fabrication of equipment shall be reliable, efficient & economical and shall be suitable for the intended services.

Unless otherwise stated, all equipment shall be designed to withstand minimum 20% intermittent overload over the normal capacity for safe mechanical operation.

As far as possible all equipment shall be assembled at manufacturer's works on a suitable base for proper assembly/ alignment and shall be subjected to internal inspection and testing by the successful tenderer as per standard practice prior to offering them for inspection by the purchaser. For equipment requiring assembly at site, major components shall be covered by polythene in position before packing the same in wooden boxes, to prevent ingress of dirt, grease etc. All fabrications and assembly areas shall be kept clean and free from contamination and during fabrication all equipment, pipes etc. shall be kept sealed to the extent possible to avoid ingress of foreign materials.

All equipment shall be complete with adequate commissioning spares and first fill of oil/ grease/ lubricant.

2 PUMPS

2.1 All the pumps for handling slurry/Sewage in the proposed plant shall be horizontal centrifugal type with flooded suction except for pumps installed in Sump pits which shall be vertical centrifugal type. The selection of the centrifugal pumps shall be as per ANSI/ BIS/ ISO or as per system design requirement with appropriate BIS codes..

- 2.2 The horizontal pumps shall be mounted on a common base plate with the motor and shall be directly coupled to the motor through a flexible coupling. For pumps handling slurry/sewage, use of belt drives and fluid couplings may be permitted. The motor capacity shall have a margin of 15% over its BHP absorbed at the pump shaft at the duty point. The efficiency of the pumps shall be 30 -35 % in the case of slurry/sewage pump or as per system design requirement with appropriate BIS codes..
- 2.3 The design of the pump shall provide no chance of cavitation or air locks and shall reduce the slippage loss to a minimum. The pumps shall be self regulating with great surge handling capacity and shall be subjected to test as specified in the relevant standards.
- 2.4 The pumping parts shall have high efficiency and at the same time heavy and robust in construction. The principal pumping parts construction shall be of Ni-hard. The pumps shall incorporate quick changing features to make the replacement of wearing parts in the shortest possible time.
- 2.5 The pump shaft and bearing shall be adequately sized to take the unbalanced load during operation. The pump gland shall ensure proper sealing without excessive tightening of the packing.
- 2.6 Each pump shall be provided with adequate safety interlock including overload and dry running protection.
- 2.7 Sump pumps shall be centrifugal, submerged, vertical spindle pumps of suitable capacity having direct drive. An automatic float switch shall be fitted.
- 2.8 All the drives shall be squirrel cage induction type, 3-Phase, 415V.

3 PIPING AND VALVES

3.1 Piping (for Water)

The pipes shall be in accordance with the latest revision of Indian standards. Wherever Indian standards are not available, other standards such as British Standards, American Standards, DIN, TIS or any other superior standards shall be followed.

The pipe shall be made of mild steel (MS) and the maximum permissible pressure and temperature shall be as per IS : 1239.

The pipe shall be extra thick, seamless with its thickness as per IS.

The pipe shall be plain ends and ends shall be cleanly finished by normal deburring process.

The pipe shall be tested for hydrostatic test for leak-tightness.

Hydrostatic tests shall be carried out at pressure of 5Mpa, maintained for at least 3 (three) seconds and shall not show any leakage in the pipe.

The tensile strength of the pipes shall be in accordance with IS: 1894.

3.2 Valves

The Valves shall be designed and manufactured in accordance with the latest revision of Indian Standards. Wherever Indian Standards are not available, other standards such as British Standards, American Standards, DIN, TIS or any other superior standards shall be followed.

Besides the above, the Valves covered under this specification shall comply with all the latest applicable statutory requirements, regulations and safety codes of environmental pollution control boards, which may be in-force during the period of execution and which are related with design, construction and operation of the Valves in the location where it will be installed.

The Valves shall be flange ended with hand wheel for operation and shall be designed to handle coal slurry and clarified water.

SECTION 6

**(6A) ADDITIONAL SCOPE OF WORK
AND
(6B) ANNUAL MAINTENANCE CONTRACT**

6(A) ADDITIONAL SCOPE OF WORK

Comprehensive operation & Annual Maintenance of complete plant machineries to be used for a period of 5 (five) years after testing and running the same successfully for 30 days during trial run / defect liability/warranty period of one year. Operation of plant will be six years

1. MISCELLANEOUS WORK :

- i) In case of any mandatory/statutory permission or certificate is required from concern local bodies, the contractor shall arrange to get necessary permission or certificate in compliance statutory authority. The cost incurred towards services shall be borne by the contractor. The application fees or mandatory fees of statutory authority will be reimbursed separately on receipt from CMPDI.
- ii) All liquid retaining RCC structure should be M-25(minimum) designed mix with protective coating as required.
- iii) All PCC shall be minimum 10 cm thick M-15.
- iv) Internal lighting, exhaust fan, ceiling fan, cables, switchgears and other control equipment in the MCC/pump house room is in the scope of contract.
- v) Development work surrounding of MCC Room i.e. Plinth protection with Paver shall be provided 1.0m around the building.
- vi) Contractor will have to make own arrangement for water requirement during construction. If available, one point water connection shall be provided by the company on chargeable basis i.e @ 1% of civil construction item of work will be deducted from the R/A or final bill. Necessary pipe shall be arranged by the contractor.
- vii) Contractor will have to make own arrangement for electricity requirement during construction. If available, one point connection shall be provided in chargeable basis based on electricity charges of MSEB, for which meter shall be arranged by the contractor.
- viii) All the reaction tanks/chambers with drain and filtrate shall be connected in such a way that the entire tank can be emptied and taken into main pumping station by gravity. There should be no necessity of filtrate pumps.
- ix) Pipe network for conveying water to various units/locations in the plant area, required during operation/maintenance of the plant is also covered in the scope of work. However, source of water shall be the CMPDI's responsibility.
- x) The Contractor shall arrange to get certificate/ license etc to install/ commissioning of Sewage Treatment Plant. Cost incurred for these services is included in the scope of work.
- xi) Any application / fess will be paid separately by the company

1. CONTRACT LIMITS:

- i) Contract limits starts from the provision of existing collection tank of WTP to the existing water treated tank or within the colony complex as per instruction of Engineer in charge.
- ii) Contract limit terminates at the laying of PVC or CI, as required, delivery pipe of with up to 300 m from the filter pumps to the existing available water treated tank.
- iii) All electrical cabling from main panel in MCC/Pump house Room to various consumption points of WTP area and nearby substations.

6 (B) SCOPE OF WORK FOR OPERATION & ANNUAL MAINTENANCE CONTRACT (COMPREHENSIVE)

Compulsory operation of the WTP & Annual comprehensive Maintenance Contract (CAMC) for a period of 5 years after the completion of warranty period of 12 months. The bidder has to quote the price for the consecutive 1st, 2nd, 3rd, 4th and 5th year for AMC separately in the quoted price & Operation for 6 years i.e. including warranty period of 12 months

Comprehensive Operation & AMC includes the following:

- 1) Contractor shall engage sufficient/required skilled operator for 24x7 to operate WTP in smooth functioning.
- 2) The contractor shall ensure that minimum wages of central labour commissioner Jharkhand and all other statutory laws, payment is adopted.
- 3) The contractor shall ensure leave replacement to the operator to function the WTP without any interruption. In case of any failure, liquidate damage shall be applicable else where mentioned.
- 4) LOG-BOOK for recording of parameters related to Water Treatment Plant shall be maintained by the firm/ agency /contractor showing the complete maintenance CAMC for Water Treatment Plant and it should be made available to the Client on a monthly basis.
- 5) Contractor shall provide all necessary spare parts, replacement of pumps or repair all equipment's/instruments, consumables, chemicals etc. as required for the complete maintenance as per requirements during the CAMC period. All approved spares parts and materials shall be genuine and of same make and type as installed wherever applicable and a minimum quantity of spares and materials for routine maintenance may be kept at site to minimize time of maintenance. The firm / agency / contractor has to keep all equipment's well maintained for the Plant so as to give proper output at all times.
- 6) Tools and equipment required for comprehensive maintenance for the WTP accessories etc. shall be provided by the firm /agency /contractor.
- 7) Proper care shall be taken to avoid major breakdown at the plant. In the event of any breakdown, the same will be rectified immediately within 4 hours from the time of reporting of the fault. Similarly, if any breakdown takes place due to negligence of firm/ agency/ contractor, the whole component has to replaced/ rectified to bring it to the original condition immediately.
- 8) The rates shall be quoted on yearly basis. The rates shall be all inclusive including taxes and duties etc.
- 9) The firm/ agency/ contractor shall fulfill the requirement of various law enforcing agencies / local authorities, such as Pollution control Board or any local body etc. by taking their approvals as and when required.
- 10) The firm/ agency/ contractor will be responsible for the safety of their deputed staff during the performance of their duty at site.

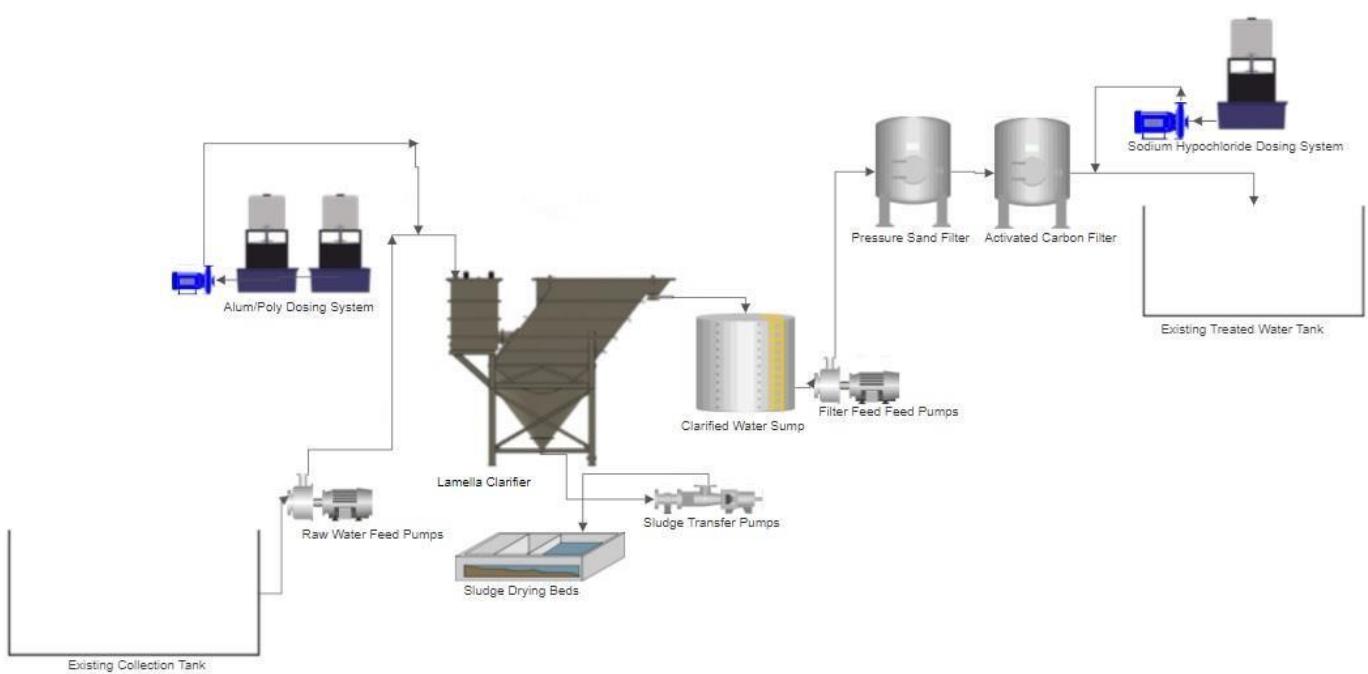
- 11) In case any of staff is not found upto the mark and not able to do work properly, he will have to be changed as per the instruction of CMPDI and immediately replaced by another qualified staff.
- 12) In case of any problem with the equipment, the firm/agency/contractor shall inform CMPDI, Ranchi immediately.
- 13) The firm/ agency/ contractor shall keep the equipment well maintained, neat and clean and adhere to the maintenance schedule of various equipment given in the respective manuals. Upon placement of work order they will prepare the maintenance schedule and discuss the same with the Engineer-in-charge or representative of CMPDI for its implementation. This may be revised from time to time as per the requirement.
- 14) The firm/Agency shall get the treated water tested once in a every months from approved Laboratory.
- 15) The firm /Agency shall send a supervisor to check the Plant once a month.
- 16) The firm /Agency shall provide all spare parts for pumps, motors, clarifier, chlorination, electrical panels, fittings/fixtures as required to ensure proper functioning of the Plant. CAMC for water Treatment Plant
- 17) Liquidated Damages:
 - a) A penalty of Rs.1000/- per month will be deducted from the bill for the months when test Certificate from approved Lab is not submitted.
 - b) A penalty of Rs.600/- per day or minimum wages as applicable, will be deducted from the bill for each day the skilled helper is not provided.
 - c) A penalty of Rs.800/- per 8 hours shift or minimum wages as applicable will be deducted from the bill for each 8-hour shift when the Skilled Technician/ operator is not provided.
 - d) A penalty of Rs 100/- per hour non operation of plant after break down period of 4 hours
- 18) The contractor shall be responsible for proper maintenance of decorum, punctuality, discipline work output and cleanliness of the Plant and its surroundings.
- 19) The agency/firm/contractor shall provide one skilled technical person for routine visit within every 15 days.
- 20) The CAMC shall include routine and preventive maintenance as also breakdown maintenance if and when required. Maintenance services shall be provided with 24 hour emergency call out service.
- 21) The Contractor shall keep sufficient spare parts during the maintenance period to ensure that replacement work for defect can be carried out immediately. A competent engineer shall be provided to investigate the fundamental cause of a fault temporary quick fix solution will not be accepted.
- 22) In circumstance such that the Contractor fails to attend the breakdown within four normal working hours after notification of the breakdown and where remedial work is interrupted during normal working hours for purposes other than obtaining replacement parts, the

employer reserves the right to order such action as may be necessary to expedite completion of remedial work which shall be at the Contractors expense without abrogation of the Contractors responsibilities.

- 23) The employer shall at his discretion, take action to recover all losses incurred rising from the failure of the contract to perform the duties either wholly or in part as detailed in this section.
- 24) The routine maintenance and periodical maintenance of all the equipment under the scope of this tender is to be done. Necessary preventive maintenance, breakdowns if any is to be attended throughout the day, all 7 days a week, with experienced and qualified personnel.
- 25) The Annual Maintenance contract will be paid quarterly in proportions. The security deposit of 5% of each R/A bill will be retained (it will not carry any interest). The total deducted/deposited security deposit will be returned after the completion of Annual Maintenance Contract period of 5 years.

SECTION 7

TENDER DRAWINGS



PROFORMA FOR PRICE BID

SCHEDULE OF QUANTITY

Item No	Sub-heads/ Item Description	Quantum of works	Unit Price (LS)	Amount (Rs)
1	Geo-technical investigation, Laboratory test, if required, SBC for foundation design, Design of WTP, , Detailed structural design by registered Structural Engineer, preparation of construction drawings etc. in all complete (All drawings shall be approved by Engineer-in-charge)	Complete works as per scope of work in chapter-5	(LS)	
2	Supply, Installation, Testing and Commissioning of Water Treatment Plant(WTP) capacity 400 KLD as per detailed scope of work and Technical specification provided in chapter-5, all cost of all tanks, pumps, pump house, cabling, lighting, all complete as per scope of work section -5 including obtaining NOC from the local state authority, Insurance premium etc. (fees, material, labours etc. in all complete)	Complete works as per scope of work in chapter-5	(LS)	
3	CI Pipe line of required diameter (min 6") from WTP to the existing treated tank near Dispensary including excavation, supplying, laying, refilling etc. and making good the excavated portion including road crossing.	M	200	
4	Comprehensive operation in 24x7, maintenance contract including necessary servicing and replacement of spare parts (OEM), Insurance premium etc as per scope of work mentioned in Section-6 A & 6 B	Complete works as per scope of work in chapter-6.0		
4.1	Operation charges during warranty period of 12 months	-do-	Per year	
4.2	Ist Year of Comprehensive operation and maintenance charges after security period/ warranty period of one year	-do-	Per year	
4.3	2 nd Year of Comprehensive operation and maintenance charges after security period/ warranty period of one year	-do-	Per year	

4.4	3rd Year of Comprehensive operation and maintenance charges after security period/ warranty period of one year	-do-	Per year	
4.5	4 th Year of Comprehensive operation and maintenance charges after security period/ warranty period of one year	-do-	Per year	
4.6	5 th Year of Comprehensive operation and maintenance charges after security period/ warranty period of one year	-do-	Per year	
Sub- Total of A				