

**ENVIRONEMNT & FOREST DEPARTMENT  
NORTH EASTERN COALFIELDS  
COAL INDIA LIMITED  
MARGHERITA, ASSAM**

Quotation No: NEC/EMLR/80/QTN/ 2025-26/281

दिनांक/Date: 17.01.2026

**कोटेशन सूचना / QUOTATION NOTICE**

Sealed item rate quotations in single part are hereby invited from the experienced, interested parties / agencies for the work as detailed below:-

**1. Quotation details :**

Name of the work : One Month Air Water and Noise Monitoring  
 Estimate cost put to tender : Rs. 1,81,708.20/-  
 (including GST)  
 Period of work : 60 (Sixty) days  
 Earnest Money : Rs. 2,300/-  
 Location of work : Tirap OCP and its 15 km buffer zone

**2. Important Dates :**

Sl.No.	Particulars	Date & Time
1.	Start date for downloading / collecting quotation document	19.01.2026 from 10.00 AM
2.	Last date for downloading / collecting quotation document	21.01.2026 upto 17.00 PM
3.	Start date of submission of bids	19.01.2026 from 10.00 AM
4.	Last date for submission of bids	21.01.2026 upto 17.00 PM
5.	Date of opening of bids	22.01.2026 at 10.30 AM

The quotation documents can be downloaded from the NEC website <https://neccoal.co.in>

**3. Important details and instructions:-**

I) Sealed filed up quotations in single part will be received in the prescribed quotation box placed in the Office of the Area Manager (Environment & Forest), Environment & Forest Department, NEC, CIL, Margherita in the aforementioned time period along with the following documents:-

i. Copy of PAN card duly attested (with signature and seal) by the bidding agency.

ii. The bidder is required to select his relevant Goods and Service Tax status (one of the three) from the following and submit the required documents :-

Sl. No	Goods and Service Tax Status	Document required to be submitted	Tick (/) any one of the three
1.	GST Registered bidder under regular scheme	Document: GST registration certificate (i.e GST Identification number) issued by appropriate Authority of India, duly attested (with signature and seal) by the bidding agency	
2.	GST Registered bidder Under composition scheme	Document: GST registration certificate (i.e GST Identification number) issued by appropriate Authority of India, duly attested (with signature and seal) by the bidding agency	
3.	GST Unregistered bidder / Dealer	Document: A certificate having UDIN 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 duly attested (with signature and seal) by the bidding agency	

iii. Earnest money of Rs.2,300/- in the form of Banker's Cheque / Demand draft drawn from a scheduled bank in favour of Coal India Limited payable at Margherita or through NEFT at the following bank details:

Name of the Account Holder: COAL INDIA LIMITED, Account No: 0018050012856, IFS Code: PUNB0001820, PUNJAB NATIONAL BANK, P.O: Margherita, Dist: Tinsukia, Assam.

(Note: If EMD deposited through NEFT then Payment acknowledgement receipt of the same should be submitted along with the quotation.)

iv. Environment Laboratory

Environmental Laboratory	<ul style="list-style-type: none"><li>Valid Recognition/Approval of Environmental Laboratory by Pollution Control Board of Assam or Central Pollution Control Board or Ministry of Environment and Forest &amp; Climate Change or Environmental Laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of Environment.</li><li>Valid ISO 9001 along with OHSAS 18001 (Occupational Health and Safety Management System).</li><li>Parameters to be analyzed</li></ul>
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**Note:** Micro and Small Enterprises (MSEs) as defined in the MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) are exempted from submission of EMD, for which they have to submit Udyam Registration Certificate (**Applicable for Service tenders**)

v. Quotation Inviting Notice documents as downloaded from CIL/Subsidiary website duly attested (with signature and seal) by the bidding agency as token of acceptance of Terms & Conditions and same shall be submitted along with the bid.

vi. All the documents submitted should be sealed and signed by the bidder or his authorized representative. In case the authorized representative is signing documents/submitting bid, then an Authorization Letter to that effect has to be submitted along with the bid.

vii. If the bidder is unsuccessful, then the EMD deposited by the bidder will be electronically refunded. For this purpose, the bidders are also required to fill and submit the Bank Mandate (enclosed).

viii. Price Bid as per the instructions stipulated below.

ix. Quotations will be shall be dropped in person in the prescribed quotation box placed at the following address only before the deadline for bid submission: -

It is the responsibility of the bidder to ensure that the bid is received in the prescribed quotation box in the **office of the Area Manager (Environment & Forest), Environment & Forest Department**, North Eastern Coalfields, Coal India Limited, Margherita before the last date (and time) of bid submission, failing which the bid will be considered invalid.

II) In Quotation Notice (below Rs. 2 lakhs) bid shall be submitted in the following manner:- Envelope/ cover shall contain the following duly stamped and signed -

- The earnest money/ Valid EMD exemption document (as applicable)
- PAN details
- Document to support GST status of bidder
- Valid Trade License, if required
- Power of Attorney, as applicable
- Bid document duly signed
- BOQ duly filled in.
- Environmental Laboratory Document

The envelope/ covers shall be sealed and submitted by the bidder. The envelope/ cover shall indicate the name of the work, name of the bidder along with the address, reference Tender Notice No., Contact Number and E-mail ID.

The evaluation of quotations received shall be done in line with evaluation done in Single cover system. The evaluation will be done based on the documents submitted by the bidder along with his bid and no clarification shall be sought from bidders. Quotation without earnest money or valid EMD exemption document (as applicable) shall be rejected.

III) It is the responsibility of the bidder to ensure that the bid is received in the office of the **Area Manager (Environment & Forest), Environment & Forest Department**, North Eastern Coalfields, Coal India Limited, Margherita within the deadline for bid

submission. The sealed quotations will be opened on the scheduled date in the presence of the bidders or their authorized representatives who choose to be present.

IV) Bids determined to be substantially responsive will be checked by the employer for any arithmetical errors. Errors will be corrected by the employer as follows:

- a) In case of discrepancy in rates between description in words and figures, the rate which corresponds to the amount worked out by the contractor shall be taken as correct.
- b) In case of discrepancy in amount quoted by the contractor due to calculation mistakes of the unit rates and quantity, the unit rate shall be regarded as firm and amount corrected.
- c) When the amount of an item is not worked out by the contractor or if it does not correspond with the rates written either in figures or words, then the rates quoted by the contractor in words shall be taken as correct.
- d) Discrepancy in totalling or carry forward in the amount quoted by the contractor shall be corrected.

V) After checking for calculation errors, the documents submitted by L-1 bidder as enlisted in the NIQ will be put up to the Tender Committee. The tender Committee will examine the documents. In case the L-1 bidder submits requisite documents as per NIQ, then the bidder will be considered eligible for award of Contract.

In case the L-1 bidder fails to comply the eligibility requirement as per NIQ, then his bid shall be rejected and EMD of L-1 bidder will be forfeited. The quotation notice shall be cancelled and re-invited.

In case the L1 bidder is technically eligible but rejection is due to high rate quoted by him/her then the quotation notice shall be cancelled and reinvited.

It is responsibility of Bidders to submit legible/clearly readable scanned copy of all the required documents.

If L1 bidder backs out (i.e. Techno commercially established L1 bidder), the EMD will be forfeited and the bidder will be debarred for minimum one (1) year from participating in tenders in CIL/Subsidiary.

VI) The price bid must be carefully filled in by the bidder. 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. The Rates must be quoted against each item in words as well as figures. Any kind of cutting and overwriting should be avoided. In case of any discrepancy in the Quoted Rate in Words and in Figures, the one mentioned in Words shall be considered as final. Hence, bidders must fill in the Price Bid very carefully. The Price Bid should also contain Name of Agency, Address, Signature and Seal of the Agency failing which the Price Bid will be considered invalid.

The L-1 will be decided based on "COST TO COMPANY"

Applicable GST, if any, either payable by bidder or by company under reverse charge mechanism shall be applicable.

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 availed (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.

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 stagebased on which cost to company has been ascertained or at actuals, whichever is lower.

**VII) The participating agencies are hereby advised to keep checking the websites <https://neccoal.co.in> i.e., Coal India/Subsidiary Website) and [www.eprocure.gov.in](http://www.eprocure.gov.in) (i.e., Central Public Procurement Portal) for any corrigenda issued in respect of this Notice Inviting Quotation, extension in Document Download Dates, Bid Submission Dates and Date of Bid Opening, etc., to keep themselves updated.**

**VIII) Security Deposit shall consist of only one part i.e. Retention money :**

a) Retention Money to be recovered from running bills. The security deposit shall bear no interest.

Since there is no Performance Security, therefore refund of the same does not arise.

All running on account bills shall be paid at 95% (ninety-five percent) of work value. The balance 5% shall be treated as retention money and will be second part of security deposit.

Retention Money should be refunded after issue of No Defect Certificate.

The Company shall be at liberty to deduct/appropriate from the 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 security deposit shall have to be restored by further deduction from the contractors subsequent on account running bills, if any.

**REFUND OF SECURITY DEPOSIT:** The refund of security deposit shall be subject to company's right to deduct/ appropriate its due against the contractor under this contract or under any other contract.

On completion of the entire work and issue of defect liability certificate (taking over certificate with a list of defects) by the Engineer-in-charge, one half of the security deposit remaining with the company (Performance Security) shall be refunded as elaborated above.

The other half (Retention Money) shall be refunded to the contractor after issue of No Defect Certificate by the Engineer-in-Charge on the expiry of Defect Liability Period of six months, subject to the following conditions:

a) Any defect/defects in the work, if detected after issue of defect liability certificate (Taking over certificate with list of defects) is/are rectified to the satisfaction of the Engineer-in-Charge within the said defectliability period of six months or on its due extension till completion of the rectification works as required.

b) In the case of building work or other work of similar nature, the refund shall be made on the expiry of the said six month's period or at the end of one full monsoon period i.e. June to September, whichever is later in point of time and any defects such as leakages in roof, effloresces in walls, dampness, defects in drainage etc. should be rectified to the satisfaction of Engineer-in-Charge.

**NB:** In case of Maintenance contracts, that ends with successful completion of work, where question of Defect Liability Period does not arise (e.g. sweeping / cleaning, horticulture, tank cleaning, jungle cutting, grass cutting, surface dressing etc.), the performance security and retention money (second part of bid security) can be released simultaneously after completion of work and taking over by department.

**IX) Bid Validity:** The Bid Validity Period will 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.

**X) Provisions for dealing with variations in respect of Abnormally High Rate (AHR) and Abnormally Low Rate (ALR) items:**

The abnormally high rate items are those whose quoted rates are more than 20% of the justified rates decided by the owner. The abnormally low rate items are those whose quoted rates are less than 20% of the justified rates decided by the owner.

In case of Item Rate Tenders, the revision of rates for (i) abnormally high rate items and (ii) abnormally low rate items, shall become operative under the following circumstances: -

For increase in quantity of more than 25% in respect of works executed below plinth level and 10% in respect of works

executed above plinth level.

Quantity variation beyond the limit mentioned above shall be dealt by arriving at new rate based on prevalent market rate of materials and labour analyzed as per standard analysis of rate of CPWD/NBO. Payment of extra quantity over the permitted quantity as explained above would be made on the basis of the new analyzed rate.

The variation in quantity of abnormally low rate items for item rate tenders shall not be permitted below 25% for the items below plinth level and below 10% for the items above plinth level of the agreed schedule quantity, but in exceptional cases with written consent of Engineer-in-Charge arising out of technical necessity.

The above provisions shall be applicable for item rate tenders only and not applicable for percentage rate tenders for works based on standard schedule of rates of the company.

For the purpose of operation, the following works shall be treated as works related to foundation, unless otherwise defined in the contract:

- a) For Buildings: All works up to 1.2 meters above ground level or up to floor 1 level whichever is lower.
- b) For abutments, piers and well steining: All works up to 1.2m above the bed level.
- c) For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs / tanks and other elevated structures: all works up to 1.2 meters above the ground level.
- d) For reservoirs / tanks (other than overhead reservoirs / tanks): All works up to 1.2 meters above the ground level.
- e) For basement: all works up to 1.2m above ground level or up to floor 1 level whichever is lower.
- f) For Roads, all items of excavation and filling including treatment of sub base.

#### **XI) Procurement from Micro and Small Enterprises (MSEs) (APPLICABLE FOR NATURE OF SERVICE TENDERS)**

i) Subject to meeting terms and conditions stated in the tender document including but not limiting to prequalification criteria, 25% of the work will be awarded to MSE as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) for the tendered work/item. Where the tendered work can be split, MSE quoting a price within a price band of L1 + 15% shall be awarded at least 25% of total tendered work provided they match L1 price. In case the tendered work cannot be split, MSE shall be awarded full work provided their quoted price is within a price band of L1 + 15% and they match the L1 price.

ii) In case of more than one such MSEs are in the price band of L1 + 15% and matches the L1 price, the work may be shared proportionately if the job can be split.

If the job cannot be split, then the opportunity to match the L-1 rate of the tender shall be given first to MSE who has quoted lowest rate among the MSEs and the total job shall be awarded to them after matching the L-1 price of the tender, in case the L1 is other than MSE. If MSE is a L1 bidder, full work will be awarded to such bidder. If the MSE who have quoted lowest rate among the MSEs in the price band of L1 + 15% do not agree to match the rate of L1 of the tender, then the MSE with next higher quoted rate in the price band of L1 + 15% shall be given chance to match the rate of L1 for award of the complete job. This process to be repeated in till work is awarded to MSE or MSE bidders are exhausted.

iii) Out of the 25% target of annual procurement from micro and small enterprises 3(three) percent shall be earmarked for procurement from micro and small enterprises owned by women. In the event of failure of such MSEs to participate in the tender process or meet the tender requirements and L1 price, 3(three) percent sub-target so earmarked shall be met from other MSEs.

iv) Out of the 25% target of annual procurement from micro and small enterprises 4(four) percent shall be earmarked for procurement from micro and small enterprises owned by Scheduled Caste & Scheduled Tribe entrepreneurs. In the event of failure of such MSEs to participate in the tender process or meet the tender requirements and L1 price, four percent sub-target so earmarked shall be met from other MSEs.

v) To qualify for entitlement as SC/ST owned MSE, the SC/ST certificate issued by District Authority must be submitted by the bidder in addition to certificate of registration with anyone of the agencies mentioned in paragraph (I) above. The bidder shall be responsible to furnish necessary documentary evidence for enabling CIL/ Subsidiary to ascertain that the MSE is owned by SC/ST. MSE owned by SC/ST is defined as:

- In case of proprietary MSE, proprietor(s) shall be SC / ST
- In case of partnership MSE, The SC/ST partners shall be holding at least 51% shares in the enterprise.
- In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters.

In case of Public Limited Companies, at least 51% share shall be held by SC/ST entrepreneurs at any given point of time.

vi) Classification of Micro and Small Enterprise are as under:

- a) Micro Enterprise –Enterprise where the investment in plant and machinery or equipment does not exceed one crore Rupees and turnover does not exceed five core rupees.
- b) Small Enterprise- Enterprise where the investment in plant and machinery or equipment does not exceed ten crore Rupees and turnover does not exceed fifty core rupees.

vii) Micro and Small Enterprises (MSEs) registered under Udyam Registration are eligible to avail the benefits under the policy.

viii) The MSEs are required to submit copy of documentary evidence, issued by their registering authority whether they are small enterprise or micro enterprise as per provisions of Public Procurement Policy for Micro and Small Enterprise (MSEs) Order, 2012 with latest guidelines/clarifications provided by MoMSME.

ix) If MSE Bidder withdraws his offers after last date of bid submission or fails to sign the Agreement or commence the work as per Conditions of Contract then such Bidder shall be debarred for a minimum period of 1(One) year in line with provisions of Guidelines on Debarment of firms from Bidding.

#### **4. Penal Clauses/Recovery of Damages:**

i. The work shall be started within 10 days of issue of work order or 7<sup>th</sup> day of handing over of the site whichever is later.

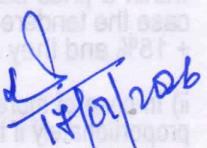
ii. In case of failure to complete the work on or before the scheduled date of completion, compensation shall be payable @ 0.5% of contract price/revised contract price whichever is less per week of delay. The total value of such compensation shall not exceed 10% of awarded value/revised completion value whichever is lower.

iii. In case of failure to start the work within stipulated time, the company shall be at liberty by giving 15 days' notice in writing to start the work, failing which to forfeit the earnest money deposited by the bidder and to rescind the work order. Additionally, the bidder will be debarred from participating in future tenders for a minimum period of 12 months.

5. The tenderer shall have to ensure implementation of CMPF/EPF, if applicable, in respect of the workers deployed by him. Payable statutory payments like PF & ESI contributions paid to the contract workers as applicable shall be reimbursed to the contractor on production of proof of payment limited to the maximum likely number of workmen to be deployed as indicated in the quotation document.

6. CIL/Subsidiary reserves its right to accept or reject any or all the quotations without assigning any reason whatsoever or to distribute the work amongst the bidders.

*Note: BoQ and Format of Bank Mandate is enclosed herewith.*



**Area Manager**

**(Environment & Forest),**

**North Eastern Coalfields,**

**Coal India Limited,**

**Margherita, Assam,**

*13/01/2016*

*13/01/2016*

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*13/01/2016*

MANDATE FORM FOR ELECTRONIC FUND TRANSFER / INTERNET BANKING PAYMENT.

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 cheque 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.							
RTGS CODE							
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 NEFT/ RTGS transfer. 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

**Schedule of Quantities for the work - "One Month Air Water and Noise Monitoring"**  
**(Quotation Notice No. NEC/EMLR/80/QTN/ 2025-26/281 Date: 17/01/2026)**  
**(All the rates are inclusive of cost of Materials and Labor)**

<b>Sl</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rates (in Rs)</b>	<b>Amount (in Rs)</b>
<b>1</b>	<b>Ambient Air</b>  SPM, RPM (PM10), PM2.5, SO <sub>2</sub> , NO <sub>x</sub>  (Above Parameter weekly Twice)  Ammonia, Carbon monoxide, Ozone, Benzo(a) pyrene, trace metals i.e As, Cr, Ni, Cd, Hg, Pb  (Above Parameter Once a Month)	96	Nos		
<b>2</b>	<b>Ambient Air</b>  Silica  (Above Parameter Once a Month)	12	Nos		
<b>3</b>	<b>Surface Water</b>  Surface water, parameter as per IS:2296:1982 (Inland surface waters), Class C- Tolerance limit for surface water used for drinking water source with conventional treatment followed by disinfection. Parameters to be analyzed: Colour, Oil & grease, Dissolved Oxygen, pH, Sodium(as Na), Potassium (as a K), Magnesium (as Mg), COD, Iron (as Fe), Chlorides (as Cl), BOD (5 days, 20°C), Total Dissolved Solids, Total Hardness, Temperature, Copper (as Cu), Hexavalent chromium (as Cr <sup>6+</sup> ), Sulphate (as SO <sub>4</sub> ), Nitrate (as NO <sub>3</sub> ), Fluoride (as F), Total coliform organisms (MPN/100 ml), Cadmium (as Cd), Selenium (as Se), Arsenic (as As), Lead (as Pb), Mercury(Hg), Manganese, Magnesium, calcium, Cyanide, Total Suspended solid, Zinc (as Zn), Phenolics (as C <sub>6</sub> H <sub>5</sub> OH).  (Above Parameter Once a Month)	5	Nos		
<b>4</b>	<b>Drinking Water</b>  Drinking water, parameters as per IS: 10500:2012. Parameters to be analyzed: Colour, Odour, Taste, Turbidity, pH, Total Hardness (as	6	Nos		

5	Effluent Water	3	Nos	

	continuous between 6.0 AM to 10.0 PM and 10.0 PM to 6.0 AM respectively.		
	(2 reading per station fortnightly for one month (weekly once))		
7	<b>Transportation</b>	1	Job
			<b>Total</b>
			<b>GST</b>
			<b>Grand Total</b>
Rupees in word			(Above Parameter Once a Month)

(NB: Rates should be quoted in words and Digits. Quotation having rates without words will be treated as invalid / incomplete and shall be rejected)

			Noise
			Noise Level Measurement on Frequency of Robot, based on 10 sec & duty time (10 sec to 9 sec). Cigarette, II, Environmental (Pollution) Rules, 1986 - Ample Air Quality Standards in respect of Noise. The duration of recording time depends on the time and date when it is recorded.
		15	Noise
			(Above Parameter Once a Month)

**Schedule of Work**

**Schedule of Work 'One Month Air Water Noise Monitoring**

<b>S.No.</b>	<b>Description of item</b>	<b>No. of Station</b>	<b>No. of Samples</b>
1.	<p>Ambient Air Sampling and Analysis is to be carried out as per G.S.R. 742(E) dt. 25th September, 2000 Ambient Air Quality Standard for coal mines and as per G.S.R. 826 (E) dated 16.11.09 of MoEF/National Ambient Air Quality Standards (NAAQS), CPCB notification vide No.B-29016/20/90/PCI-L dated 18th Nov 2009 and subsequent amendments (if any)and preparation of a consolidated one month report</p> <p>{The consolidated report should cover all the stations of the project. The report should also include the micrometeorological study for the month as described in Section IX of NIT. There will be one station for each project to generate micro-meteorological data}.</p> <p><b>Note:</b> The frequency of air sampling at each station would be twice a week i.e for SPM, RPM (PM10), PM2.5, SO<sub>2</sub>, NO<sub>x</sub>, for twenty-four hours duration for twelve weeks in one month i.e 2 sample per week x 12 weeks= 24 samples per station in a month and once in a month for Ammonia, Carbon monoxide, Ozone, Benzo(a) pyrene, benzene and trace metals on air filter paper i.e As, Cr, Ni, Cd, Hg, Pb}.</p> <p>Quoted rates per station should be inclusive of the apportioned cost towards generation of micro-meteorological data for the month and preparation of consolidated report, all inclusive as per the direction of Engineer-in-charge</p> <p><b>Parameters Silica Shall also be analysed in ambient air quality once in a month.</b></p>	12	<p>1. <b>Parameters to be monitored twice a week:</b> 2 days per week x 4 = 8 samples per station in a month. Total sample <math>8 \times 12 = 96</math></p> <p>2. <b>Parameters to be monitored once in a month:</b> Total Sample 1 x 12 = 12</p>
2.	Water Sampling, Analysis and preparation of Report, all inclusive as per direction of Engineer-in-charge for the following category of samples		

2a.	MOEF Schedule VI - General Standards for discharge of environment pollutants Part – A: Effluent parameters for Inland Surface Discharge (class A), (GSR no. 422(E) dt. 19th May, 1993 and as amended on 31.12.1993 and 2.4.1996) Parameters to be analyzed : Colour, Odour, Total Suspended Solids, pH, Temperature, Oil & grease, Ammonical nitrogen (as N), Total Kjeldahl nitrogen (as NH3), BOD (5 days, 20°C), COD, Arsenic, Lead, Cadmium, Hexavalent chromium, Total chromium, Copper, Zinc, Selenium, Nickel, Fluoride, Dissolved phosphates (as P), Sulphide (as S), Phenolic compounds (as C6H5OH), Manganese, Iron (as Fe), Cyanide, Nitrate Nitrogen (as N), Mercury, Chlorine Residual, Hardness (Total), Vanadium. Also analyse Calcium, Chlorides, Boron, Sulphate, Turbidity.	3	One Sample per station per month for a month = $1 \times 3 = 3$
2b.	Drinking water, parameters as per IS: 10500:2012. Parameters to be analyzed: Colour, Odour, Taste, Turbidity, pH, Total Hardness (as CaCO <sub>3</sub> ), Iron (as Fe), Chlorides (as Cl), TSS, Magnesium(as Mg), Dissolved Solids, Calcium (as Ca), Copper (as Cu), Manganese (as Mn), Sulphate (as SO <sub>4</sub> ), Nitrate (as NO <sub>3</sub> ), Fluoride (as F), Residual free chlorine, Cadmium (as Cd), Selenium (as Se), Arsenic (as As), Lead (as Pb), Zinc (as Zn), Hexavalent chromium (as Cr <sup>6+</sup> ), Boron, Phenolics (as C6H5OH), Alkalinity, Faecal Coliform (MPN), Aluminium, Mercury, Detergent, Cyanide, Temperature. Also analyse Sodium(as Na) and Potassium (as a K).	6	One Sample per station per month for a month = $1 \times 6 = 6$
2c.	Surface water, parameter as per IS:2296:1982 (Inland surface waters), Class C- Tolerance limit for surface water used for drinking water source with conventional treatment followed by disinfection. Parameters to be analyzed: Colour, Oil & grease, Dissolved Oxygen, pH, Sodium(as Na), Potassium (as a K), Magnesium (as Mg), COD, Iron (as Fe), Chlorides (as Cl), BOD (5 days, 20°C), Total Dissolved Solids, Total Hardness, Temperature, Copper (as Cu), Hexavalent chromium (as Cr <sup>6+</sup> ), Sulphate (as SO <sub>4</sub> ), Nitrate (as NO <sub>3</sub> ), Fluoride (as F), Total coliform organisms (MPN/100 ml), Cadmium (as Cd), Selenium (as Se), Arsenic (as As), Lead (as Pb),	5	One Sample per station per month for a month = $1 \times 5 = 5$

	Mercury(Hg), Manganese, Magnesium, calcium, Cyanide, Total Suspended solid, Zinc (as Zn), Phenolics (as C <sub>6</sub> H <sub>5</sub> OH).		
3.	Noise Level Measurement and preparation of Report, based on dB(A) Leq value, day time (6 am to 10 pm) & night time (10 pm to 6 am), Schedule III, Environment (Protection) Rules, 1986 – Ambient Air Quality Standards in respect of Noise. The duration of recording the observations at each station during day time and night time shall be continuous between 6.0 AM to 10.0 PM and 10.0 PM to 6.0 AM respectively. All inclusive as per direction of Engineer-incharge.	12	2 reading per station fortnightly for one month i.e. Day and Night = 12 x 2 x 2 = 48
4.	Lumpsum Transportation Charges (per project)	1 job	