

No. TEXMiN/Pur/2023-24/019-17

Dated: June 23, 2023

## **Corrigendum**

**Sub: "Supply and Installation of Water Sprinkling System" for Project No. PSF-IH-1Y-019 sponsored by TEXMiN Foundation.**

Ref. No. Tender No. TEXMiN/Pur/2023-24/019-17 dated: 31.05.2023

The due dates of the above-mentioned NIT No. is extended as follows:

Particulars	Date & Time	
Last date & time for submission of tender	<del>21.06.2023 at 01:00 P.M.</del>	07.07.2023 at 01:00 P.M.
Date & time for the opening of tender	<del>21.06.2023 at 04:00 P.M.</del>	07.07.2023 at 04:00 P.M.

All the bidders, who have already submitted their bid against the earlier NIT are not required to submit the bid again. All terms & conditions remain the same.



Prof. P K Jana  
Professor, CSE/IIT (ISM)  
Dhanbad &  
Indenter & PI/TEXMiN

# Technology Innovation in Exploration and Mining Foundation

IIT (ISM) DHANBAD



## **E-TENDER DOCUMENT**

Notice Inviting Tender (NIT)

for

**Supply and Installation of “Water Sprinkling System”**

Tender No.: **TEXMiN-Purchase-23-24-019-17**

Date: 31 May 2023

**Bid Submission deadline: 21.06.2023, 1:00 P.M.**

**Chief Executive Officer, TEXMiN Foundation**

**3<sup>rd</sup> Floor, i2h Building, IIT (ISM), Dhanbad**

**DHANBAD -826004 (INDIA)**

**[www.texmin.in](http://www.texmin.in), [www.iitism.ac.in](http://www.iitism.ac.in), [purchase@texmin.in](mailto:purchase@texmin.in)**

**GSTIN : 20AAICT1465H1ZK**

**NOTICE INVITING TENDER****Subject: Supply and Installation of the Water Sprinkling System.**

Quotations are invited for the supply and installation of the following items at Technology Innovation in Exploration and Mining Foundation, IIT (ISM) Dhanbad

Sl. No.	Description of Materials	Unit	Quantity	Indenting Deptt./section
1.	<b>Supply and Installation of Water Sprinkling System (Detailed Specification given in Annexure - I)</b>	No.	<b>01</b>	<b>TEXMiN Foundation</b>

**Tender Schedule**

Sl. No.	Particulars	Date & Time
1.	<b>Tender Application Cost</b>	<b>NIL</b>
2	Bid Security Cum Security Deposit	<b>Rs. 16,250.00</b>
3.	Start date and time for submission of tenders	<b>31.05.2023 at 1:00 P.M.</b>
4.	Last date and time for submission of tenders	<b>21.06.2023 at 1:00 P.M.</b>
5.	Last date for sending pre-bid queries	<b>20.06.2023 at 1:00 P.M</b>
6.	Date and time of opening of tenders	<b>21.06.2023 at 4.00 P.M.</b>

1. You are requested to quote your lowest rates for the supply of the above items in price bid.
2. **Tender documents and bids should be submitted through offline mode only.**

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**CHAPTER 1**  
**Instructions to Bidders**

IIT (ISM) Dhanbad has been entrusted with the establishment of a mining technology innovation hub in Exploration under the National Mission for Interdisciplinary Cyber-Physical Systems (NM-ICPS). As mandated under the framework of the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) by DST, Govt. of India**, Technology Innovation Hub (TIH) at IIT (ISM), Dhanbad is aimed at becoming the nodal center heading the CPS based innovation activities in Exploration and Mining. IIT (ISM) Dhanbad intends to procure the Supply and installation of a **Water Sprinkling System** to enrich its teaching and research facility at Dhanbad.

Reputed manufacturers or authorized distributors are invited to submit their bid for the **Supply and Installation of "Water Sprinkling System"** for TEXMiN, IIT (ISM), Dhanbad as per this tender document in a Two-Bid System: - (a) Techno-Commercial (also termed as technical bid) bid (Part-1) consisting of all technical details of the item along with commercial terms and conditions, BSDF (Bill Security Declaration Form) and (b) Price bid (Part-2) indicating price for their items mentioned in the technical bid. All instructions and terms and conditions must be followed, failing which bid(s) will liable to be rejected.

**INSTRUCTIONS**

1. Offer should be submitted under TWO-BID system i.e. "Techno-commercial bid" and "Price bid" in offline mode only.
2.
  - a) **In a tender, either the Indian agent on behalf of the principle/ OEM and the Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.**
  - b) **If an agent submit bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.**
3. Bidder(s) must submit GST Certificate / TIN and Scanned Copy of PAN with the bid.
4. The offer must be submitted offline in **Two-Bid** system only.
5. The tenderers who are currently registered and shall continue to remain registered during the tender validity period with Central Purchase Organisation (CPO) or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Start-up as recognised by Department for Promotion of Industry and Internal Trade (DPIIT), are exempted from payment of Tender Fee and Earnest Money Deposit (EMD) / Bid Security. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration with CPO or as a MSE or Start-up, as the case may be). Micro & Small Enterprises must attach Registration Certificate issued by DIC / KVIC / KVIB / Coir Board / NSIC / Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as updated Udyog Aadhaar Memorandum / Acknowledgment.

6. Bid document(s) and all enclosures must contain the signature and seal of the authorised representative of the bidder.
7. The bidder quoting for item(s) as per this tender should be the registered to provide the item/services with the appropriate government authority. Copy of registration certificate should be submitted with the tenders.
8. The Bank/RTGS detail on the letter-head of the bidder(s) must be submitted along with the technical BID.
9. The Eligibility, Purchase Preference and other conditions will be as detailed in Order No. P45021/2/2017-P(BE-II) dated : 04th June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI. Bidders are mandatory to indicate whether they are under Class – I local supplier, Class – II local supplier or Non- local supplier. **Non -Local supplier is not eligible to bid in this tender.** Bid received from Non- Local supplier will be treated as non-responsive and will not be considered for evaluation. Please refer terms and condition for details.
10. After opening of the price bid no query pertaining to technical aspects will be entertained.

**CHAPTER 2**  
**Terms and Conditions**

**The offer must comprise of the following, failing which it will be treated as non-responsive bid hence will be rejected:**

1. The bids under the Two-Bid System will consist of two parts as per the following details:-
  - a) Techno-Commercial bid (Part 1) consisting of all technical details along with required EMD amount, cost of the tender form (if any), technical offer (catalog/brochure/specifications etc.), supportive documents related to eligibility criteria (Copies of documents/Certificates like GST Registration/ PAN/ Authorization letters/ PO or Work order copies as proof of supply/work done, tax related documents etc.) along with ALL applicable forms / annexures of this tender except (Price Schedule). All the pages included as Tender Document should be legible, neatly numbered and signed by authorized person with official seal of the Firm as acceptance of the terms and conditions. Offers with Counter Conditions will be liable for Rejection. No information regarding price should be mentioned in this part. Any price indication in the Technical Bid will be summarily rejected. Techno-commercial bid to be submitted offline mode.
  - b) Price bid (Part 2) indicating price for the items/services mentioned in tender documents. Price Schedule exactly as per format duly filled and to be submitted offline mode.

In stage-one, only the Techno-Commercial (Part 1) shall be opened and evaluated. In stage-two, the Price bids (Part 2) of only the technically qualified and acceptable offers will be opened, for further evaluation.

**Important Note: Offers submitted not in line with the above guidelines will be liable for rejection.**

2. All relevant technical specifications/details of offered items, drawings, printed technical leaflets, and commercial details which are necessary to ensure that offer is complete in all respects should be attached with the techno-commercial bid documents.
3. A 'Compliance Statement' (Form-6) along with status of compliance.
4. All applicable forms duly filled, signed and sealed must be submitted along tender documents in bid. The bidder is expected to examine all instructions, forms, terms and specifications in the Bid Document. Failure to furnish all information required as per the tender document or submission of a bid not substantially responsive to the tender document in all respect will be at the Bidder's risk & responsibility and may result in rejection of their bids.
5. TEXMiN, IIT(ISM), Dhanbad does not bind itself to offer any explanation to those bidders whose Technical Bids have not been found acceptable by the Evaluation Committee of the Institute.
6. Following documents have to be furnished by the bidders with the techno-commercial bids (part-1):
  - (a) Technical literature/catalog with the detailed specification of the material
  - (b) Satisfactory performance certificate from their customers for same/similar supply/service must be enclosed along with the technical bid.

- (c) A copy of this tender document must be signed and sealed on all pages by the bidder(s) accepting the instructions and terms & conditions of the NIT and must be attached with the BID.
- (d) All relevant / applicable forms as per tender documents.
7. The Bidder shall indicate on the appropriate price schedule form (provided with the Tender in the Price Bid), the unit prices of the goods / services it proposes to supply under the contract.
8. Price should be quoted exactly as per the format as mentioned. Multiple rates for a single item/variable rates unless solicited in the tender will not be accepted and would lead to rejection of offer. Price bids with conditions /Counter conditions are liable for rejection. Detailed Break up of charges may please be furnished. In case all-inclusive price is quoted without detailed price break up, then TEXMiN, IIT (ISM) Dhanbad will not be able to consider re-imburement of any increase in statutory levies, if any.
9. Bid Security, BSDF with the bid (part-1). Bid received without BSDF in part-1 (techno-commercial bid) will be rejected.

The bid security shall be in Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

- a. A bank guarantee issued/confirmed by a Scheduled Commercial Bank in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Scheduled commercial bank in India; or
- b. Fixed Deposit receipt pledged in favour of the **Technology Innovation in Exploration & Mining Foundation, IIT (ISM), Dhanbad**
- c. Through RTGS/NEFT;
- d. Bid Securing Declaration (as per Form-1)

#### **9.1 The bid security may be forfeited:**

- a. If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- b. In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

- 10. Performance Security or Performance Bank Guarantee (PBG):-** The successful bidder(s), on whom order will be placed, has to submit a performance security of 3% of the total order value at the earliest as per PO terms before release of any payment. Performance security has to be submitted in the form of Bank Guarantee/Demand Draft/FDR from any Nationalized/Scheduled commercial Bank in favour of the Technology Innovation in Exploration & Mining Foundation, IIT (ISM), Dhanbad. Performance security should remain valid for a period of two months beyond the date of completion of all contractual obligations of the successful bidder(s). No interest will be payable by TEXMiN, IIT (ISM) Dhanbad on the Performance Security deposited. In case the



contractor fails to provide satisfactory service, the Performance Security submitted by the bidder(s) is liable to be forfeited. An undertaking to this is to be submitted within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security (PS).

The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled.

**12.1 In case of submission of Bank Guarantee, the bidder should ensure that the concerned bank sends a copy of Bank Guarantee to TEXMiN, IIT(ISM), Dhanbad immediately through Registered Post/Speed post/courier/email Chief Executive Officer or, TEXMiN Foundation, 3<sup>rd</sup> Floor, i2h Building, IIT (ISM) Dhanbad/ (purchase@texmin.in).**

**11. Validity Period: -**

The validity period of the tender should be clearly specified. It must be at least for **180 (One Hundred Eighty) days** from opening of the Technical bid.

In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (by post, fax or e-mail). The bid security provided shall also be suitably extended failing which the bid would be summarily ignored. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

**12. Finalization criteria:** L1 bidder will be decided on Overall L1 basis i.e. on **Supply and Installation of the setup of the "Water Sprinkling System"**

**13. Award of purchase order/Contract:** Order will be placed on the selected party after evaluation and approval of the competent authority. However, Chief Executive Officer, TEXMiN, IIT (ISM) Dhanbad reserves the right to cancel/discontinue this order at any point of time, with a notice to the supplier.

**14. Warranty:**

- a. All the active components must carry 01 year comprehensive warranty
- b. The equipment should carry OEM warranty with next business day service resolution commitment.
- c. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- d. Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

**15. Comprehensive Annual Maintenance Contract / Annual Maintenance Contract (AMC/CAMC):** The charges towards AMC/CAMC should be provided separately for extension of warranty for additional years (which is beyond the normal warranty period) in the price bid if applicable.

**16. Denial Clause:** That no increases in price on account of any statutory increase in or fresh Imposition of customs duty, excise duty, Sales Tax, CST, VAT or on account of any other taxes/duty, including custom duty, liveable in respect of the Stores specified in the said contract which takes place after original delivery period; shall be admissible on such of the said Stores, as  
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are delivered after the said delivery period.

That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after original delivery period shall be admissible on such of the said Stores as are delivered after the said delivery period.

- 17. Delivery Period:** As time is the essence for this procurement, hence the ordered materials/work complete in all respects are required to be delivered and installed within 45 days from issue of Purchase Order / Work Order to successful bidder. Terms of Delivery will be F.O.R. TEXMiN, IIT (ISM), Dhanbad only.
- 18. Liquidated Damage:** Liquidated damages of 1% per week for the delayed period subject to maximum of 5% of the total basic value of the order shall be deducted from the invoice of the supplier. Earliest/expected delivery period should be clearly indicated.
- 19. Inspection:** Inspection shall be carried out at TEXMiN, IIT (ISM), Dhanbad after arrival of the materials and decision of the TEXMiN, in this regard shall be final.
- 20. Rejection and Replacement:** Rejection, if any, shall be notified to the supplier within 30 days of receipt and inspection of the material/workmanship. Rejected materials/work is to be removed by the supplier at his own risk and cost from TEXMiN, IIT (ISM) Campus within 15 days of intimation of rejection. Defective Supplies are required to be replaced within 15 days of the removal of the rejected materials/work.
- 21. Risk Purchase:** TEXMiN, IIT (ISM) shall be at liberty to realize from the supplier the differential amount, if any, which it shall have to incur on purchase of the material/work at higher price(s) from elsewhere in the market, if the supplier, due to their fault, fails to supply the ordered quality and quantity of the material/work within the stipulated time.
- 22. Conditional offer /counter condition will not be accepted.**
- 23. Payment:** Payment may be released through RTGS / online payment mode against complete execution of the purchase order (PO) and submission of all the required documents as per the order preferably within 30 days after satisfactory supply, inspection, installation/commissioning & acceptance and on submission of pre-receipted tax invoice, delivery challan, warranty certificate and installation report in triplicate and Performance Bank Guarantee. The invoice should be duly certified by the Chief Executive Officer of TEXMiN, IIT (ISM), Dhanbad to which supply is made or any other TEXMiN, IIT (ISM) official authorized for this purpose. Advance payment may not be released. Payment will be released through bank/ RTGS/Wire transfer after statutory deductions.
- 24. Any payment will be released only after satisfactory completion of the work/installation, Submission as well as confirmation from issuing bank of the PBG and certified bill(s) / invoice(s) along with Warranty Certificate.**
- 25. All communications are to be addressed to the Chief Executive Officer, TEXMiN, 3<sup>rd</sup> Floor, CRE Building, IIT (ISM), Dhanbad through Email (purchase@texmin.in) quoting the Tender No. and Date.**
- 26. TEXMiN, IIT (ISM), Dhanbad reserves the right to accept or reject or cancel any or all tender notice or bid(s) or order(s) at any stage without assigning any reason thereof.**

27. For any dispute, the place of jurisdiction shall be Dhanbad (Jharkhand, India) only.
28. **Governing Law:** The order, placed, will be the contract between the successful bidder(s) and TEXMiN, IIT (ISM), Dhanbad and shall be governed by the LAWS of India and under the contract shall be taken by the parties only in Dhanbad (Jharkhand, India) to competent jurisdiction.
29. Bid(s) shall be as per tender document only. If submitted in any other form / format, the same shall be rejected. All pages must be numbered properly and there must be seal and sign of the bidder(s) on all the pages of its bid.
30. The bid is liable to be rejected if complete information is not given therein, or if the particulars and data (if any) asked for in the Schedule to the tender are not filled-in properly.
31. The successful bidder(s) will identify TEXMiN, IIT (ISM), Dhanbad, in case of any damage or liability, which may arise on account of any act or omission directly/indirectly attributable to the bidder(s).
32. Disputes, if any arising out of providing the said service(s) shall be settled mutually or through arbitration by a sole Arbitrator to be appointed by the Chief Executive Officer, TEXMiN, IIT (ISM), Dhanbad at Dhanbad, mutually agreed as per the provisions of the Indian Arbitration and Conciliation Act, 1996 and the Rules framed there under. The award passed by the said sole Arbitrator will be binding upon the parties. The arbitration proceedings shall be held at Dhanbad only.
33. The bidder(s) should be registered with Income Tax, GST etc. and to enclose copies of the relevant certificate along with the technical bids. The agency must be authorized by an appropriate government authority to deliver the items/services at the IIT (ISM) Dhanbad.
34. The successful bidder(s) will ensure that its employees/staff/personnel would strictly follow all the security instructions and rules and regulations of TEXMiN, IIT (ISM), Dhanbad during their visit to the campus.
35. Necessary corrigendum(s), if required, may be issued at any stage, which must be acceptable to the bidder(s). Any corrigendum will be published on our website [www.texmin.in](http://www.texmin.in) or [www.iitism.ac.in](http://www.iitism.ac.in). Bidder(s) must be in touch with our website [www.texmin.in](http://www.texmin.in), [www.iitism.ac.in](http://www.iitism.ac.in). It will be sole responsibility of the bidder(s) that they will go through the corrigendum(s) published, if any, on our website [www.texmin.in](http://www.texmin.in) or [www.iitism.ac.in](http://www.iitism.ac.in) and submit its tender accordingly.
36. Shortlisted bidder(s) may be called for presentation / demonstration / meeting at TEXMiN, IIT (ISM), Dhanbad office with a short notice (Minimum seven days' time). Request from the bidder(s) to change the date and time of presentation/demonstration / meeting will not be accepted. If the bidder(s) will not attend for the same, then their bid(s) will be treated as non-responsive and hence the bid(s) will not be considered for further process.
37. Price bids will be opened for those bidder(s) who are shortlisted and declared as technically qualified bidder(s) by the Committee of the TEXMiN, IIT (ISM), Dhanbad. In this regard, the decision of TEXMiN, IIT (ISM), Dhanbad will be final and binding to all the bidder(s).
38. Part supply of the Purchase Order / Work Order is not acceptable unless until it is explicitly mentioned in Purchase Order / Work Order.

39. Bid complete in all respect must be submitted through applicable mode before submission deadline / last date & time for submission of the bids. The bids will be opened as per IIT(ISM) rules. In case bid opening-date is a holiday/declared as a holiday, then next working date will be the opening date of tender. Submission deadline or bid opening date & time will not be changed upon any request from the bidder side. However, it may be changed as per TEXMiN, IIT(ISM) rules. In this regard, decision of the TEXMiN, IIT(ISM), Dhanbad will be final and binding to all the bidders.
40. For the items / services, the bidders must ensure the required quality, quantity, materials, dimensions & other parameters (HSN Code etc.) and quote accordingly. In case items / services provided are not same as quoted/ordered, the claim for payment shall not be accepted. No payment, claims for such items / services shall be released. In this regard, decision of TEXMiN, IIT (ISM), Dhanbad will final and binding to the bidders.
41. TEXMiN, IIT (ISM) Dhanbad at its discretion may change the quantity/quality/parameters/upgrade the criteria/drop any item(s) or part thereof at any stage. In case of any dispute, the decision of TEXMiN, IIT(ISM) shall be final and binding on the bidders/tenderers.
42. TEXMiN, Dhanbad reserves the right to accept or reject any or all the bids in part or in full without assigning any reason. The decision of the competent authority of TEXMiN, IIT (ISM), Dhanbad will be final and binding to the bidder(s).
43. Professional(s) to be deployed by the successful bidder(s) for the supply of the item / installation / execution of the work in order to provide the item(s) /service(s) as per order must be well qualified.
44. ***If any fraudulent document submitted by the vender/firm is detected at any stage during the procurement or after the procurement, the institute will take appropriate legal action against the vendor/firm including the recovery of two times of purchase order/award of work and equipment/items will not be returned.***
45. All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as non-responsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
- The Bidder is not eligible.
  - The Bid validity is shorter than the required period.
  - The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
  - Bidder has not agreed to give the required performance security or has not furnished the bid security.
  - The goods quoted are sub-standard, not meeting the required specification, etc.
  - Against the schedule of Requirement (incorporated in the tender enquiry), the bidder has not quoted for the entire requirement as specified in that schedule.
  - The bidder has not agreed to some essential condition(s) incorporated in the tender enquiry.
46. **Purchase Preference (GoI no. P-45021/2/2017-PP (BE-II), dated 04/06/2020) P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021**

- A.** Subject to the provisions of above Order and to any specific instructions issued by the Nodal Ministry or in pursuance of GoI no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.
- B. In the procurements of goods or works, which are covered by** para 3(b) of order no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure.
- (i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
  - (ii) If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference (the margin of purchase preference shall be 20%), and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 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 suppliers, then such balance quantity may also be ordered on the L1 bidder.
- C. In the procurements of goods or works, which are not divisible in nature,** and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:
- i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
  - ii) If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 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 L1 price.
  - iii) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' 'within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

- D. "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.
- E. **Non -Local supplier is not eligible to bid in this tender. Bid received from Non-Local supplier will be treated as non-responsive and will not be considered for evaluation.**
- F. **Definitions: As prescribed in DIPP Order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021:**
- **'Local content'** means the amount of value added in India which shall, unless otherwise prescribed by the Noda! 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.
  - **'Class-I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under said Order.
  - **'Class-II local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under said Order.
  - **'Non -Local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under above Order.
- G. ***Non local supplier is not eligible to bid in this tender. Bid received from non-local supplier will be treated as non- responsive and will not be consider for evaluation.***

**49. Bid Prices:** Bidders are requested to note that they should necessarily submit their price bids in the format provided and no other format is acceptable. Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods it proposes to supply under the contract. Bidders are required to quote each and every item in price bid. Failing to this bid may be liable for rejection.

Note: TEXMiN, Dhanbad will not be responsible or liable to pay if bidder fails to mentioned packing, forwarding, freight, insurance charges, taxes etc. in its price bid.

- 50. Pre-bid Conference (PBC):** A Pre-bid Conference may be held, if indicated in invitation to bid. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate the purchaser, the proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach the purchaser as indicated in the invitation to bid. **Bidder may also email pre-bid queries to [purchase@texmin.in](mailto:purchase@texmin.in) highlight tender no., tender date, tender name while communicating.** The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. The proceeding of the Pre-Bid Conference would be hosted on the website of the purchaser. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website after the Pre- bid Conference, in order to enable them take cognizance of the revised tender conditions.
- 51.** If the successful bidder(s) commits breach of any of the above or Order's terms and conditions or is not able to deliver the item / provide the services / complete the work on time, the contract will be cancelled and security deposit shall be forfeited and a damage liability at the discretion of TEXMiN, IIT (ISM), Dhanbad will be imposed on the bidder(s).
- 52. Eligibility in case of Land Border Share:** 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 order F.N. 6/18/2019-PPD dated 23 July 2020.

**CHAPTER 3: Other Forms**

**Form-1**

**Bid-Securing Declaration Form**

Date: \_\_\_\_\_

Bid No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of two year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of: (insert complete name of Bidder) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)



**Form-2**  
**Contract Form**

To,  
The Chief Executive Officer  
Technology Innovation in Exploration & Mining Foundation  
3<sup>rd</sup> Floor, i2h Building,  
IIT (ISM) Dhanbad, Dhanbad– 826004

**Ref.:** Your Notice Inviting Tender No. TEXMiN-Pur-22-23-019-187 , Dated: 31 May 2023

Sir/ Madam,

1. I/We have gone through all Chapters of the tender document such as Instructions and Terms and conditions, minimum eligibility criteria, schedule of requirements, Specifications and allied technical details etc. as enlisted by you in your Notice Inviting Tender for the subject under reference.
2. I/We, hereby confirm that we have understood all the above and confirm my/our commitment to abide by them.
3. If our tender is accepted, I/we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the tender document.
4. I/We agree to keep our tender valid for acceptance for a period upto as required in tender documents or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender upto the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. I/We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.
5. I/We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.
6. I/We hereby declare that all statements/details made in this tender are true, complete and correct to the best of my knowledge and belief. I/We understand that in the event of any information being found false or incorrect at any stage or we do not satisfy any of the stated criteria, our offer is liable to be cancelled automatically and IIT (ISM), Dhanbad may take an action against this firm for such false information including legal action.

<b>Documents Required</b>	<b>Document No. (Submit a copy of the same)</b>
Photo identity of Authorized signatory (i.e. PAN Card/Voter ID/Aadhaar Card/Official ID Card)	
GSTIN of Bidder	
PAN of Bidder	

Date:

Signature:

Name of Authorized Signatory:

Designation of Authorized Signatory:

Name of Bidder:

Address of Bidder:

Seal of Bidder:

Technology Innovation in Exploration and Mining Foundation, IIT (ISM), DHANBAD

**Form-3****FORMAT FOR BANK GUARANTEE FOR PERFORMANCE SECURITY**  
**(PERFORMANCE BANK GUARANTEE)**

To,  
The Chief Executive Officer  
Technology Innovation in Exploration & Mining Foundation  
3<sup>rd</sup> Floor, i2h Building,  
IIT (ISM) Dhanbad, Dhanbad- 826004

Reference :P.O.No.\_\_\_\_\_dated\_\_\_\_\_

Dear Sir,

GUARANTEE NO. \_\_\_\_\_ date: \_\_\_\_\_

AMOUNT OF GUARANTEES. \_\_\_\_\_

GUARANTEE COVERS FROM \_\_\_\_\_ TO \_\_\_\_\_

LAST DATE FOR LODGEMENT OF CLAIM: \_\_\_\_\_

This deed of Guarantee executed by the (\_\_\_\_name of the Bank) constituted under \_\_\_\_\_ Act, \_\_\_\_\_ having its Central Office at \_\_\_\_\_ and amongst other places a branch at \_\_\_\_\_ (hereinafter referred to as "The Bank") in favour of The TECHNOLOGY INNOVATION IN EXPLORATION & MINING FOUNDATION, IIT (ISM), Dhanbad-826004 (hereinafter referred to as "The Beneficiary" for an amount of not exceeding Rs \_\_\_\_\_ (Rs. \_\_\_\_\_) at the request of M/s \_\_\_\_\_ (hereinafter referred to as the "Contractor(s)"/"Supplier(s)").

In consideration of The Chief Executive Officer, TEXMiN, IIT (ISM), Dhanbad-826004 (hereinafter called the Purchaser) having entered into an agreement vide their Purchase Order No. \_\_\_\_\_ dated \_\_\_\_\_ with M/s \_\_\_\_\_ (hereinafter called the Supplier) to carry out the supply and installation of the \_\_\_\_\_ (Name of the equipment's /work/Job)

at their TEXMiN, IIT (ISM), Dhanbad as per their above order, the supplier agreed to execute a Bank Guarantee for \_\_\_\_% of the supply order value viz. Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) towards Performance Warranty obligation for a period of \_\_\_\_ year(s) from \_\_\_\_\_ to \_\_\_\_\_.

We, the \_\_\_\_\_ Bank, \_\_\_\_\_ Branch (hereinafter referred to as a Guarantor) at the request of the supplier, irrevocably undertake to indemnify and to keep indemnify the Company without any demur to the extent of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_)

\_\_\_\_\_ ) in the event of the aforesaid supplier failing to comply the Warranty Obligation as per the agreed terms to the full satisfaction of the Company.

We \_\_\_\_\_ Bank, further agree that the Guarantee herein contained shall remain in full force and affect during the period that would be taken for the performance of the equipment as stated in the Purchase Order issued by the Company and that it shall continue to be enforceable till the completion of the period and certified that warranty obligation have been fully carried out by the supplier and accordingly discharges the Guarantee subject. However, the Company shall have no right under after the expiry of the Guarantee, i.e. \_\_\_\_\_(date).

We, \_\_\_\_\_ Bank undertake not to revoke this Guarantee, during its currency except with the previous consent of the Company in writing.

Notwithstanding anything contained herein.

1. Our liability under the Bank Guarantee shall not exceed Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_).
2. This Bank Guarantee shall be valid up to \_\_\_\_\_.
3. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before expiry of date (i.e. \_\_\_\_\_).

NOTWITHSTANDING anything contained herein above, our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) our guarantee shall remain in force until. Unless a Demand or claim under the guarantee is made on our bank in writing on or before \_\_\_\_\_ all your rights under the said guarantee be forfeited and we shall be relieved and discharged from all liabilities thereunder.

### Details of the Issuing Bank

Name of the Bank	
Branch Name	
Branch Code	
IFSC Code	
E-mail Id	
Phone/Mobile No.	

Seal & Signature of the Bank

**Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send a copy of the same by Email (purchase@texmin.in) to TEXMiN, IIT (ISM) Dhanbad with a covering letter to compare with the original BG for the correctness, genuineness, etc.**

**Form-4**

**MANUFACTURERS' AUTHORIZATION FORM (If Applicable)**

***The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer and be enclosed with the technical bid.***

Date:

Tender No.:

Address of the Manufacturer:

We do hereby authorize *[insert complete name and address of Bidder]* to submit the bid as per the above-mentioned tender no. and to subsequently negotiate and sign the Contract. This is to confirm that the item(s) as per the tender is/are manufactured by our firm.

We hereby extend our full guarantee and warranty in accordance with Clause 14 of the Terms & Conditions, with respect to the Goods offered by the above firm.

We hereby confirm the compliance of the technical specifications submitted by our authorized Bidder (Form-7)

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_ *[insert date of signing]*

**Form-5****COMPLIANCE STATEMENT FORM**

<b>S. No. (as per NIT)</b>	<b>Required Specifications /Parts/Accessories of Tender Enquiry</b>	<b>Quoted specification including Model No. if any</b>	<b>Compliance (Yes / No)</b>	<b>Deviation, if any to be indicated with technical justification (The compliance/ deviation should be supported with relevant Technical literature/brochure)</b>
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Seal and Sign of Bidder

**UNDERTAKING BY THE BIDDER**

- ❖ If the bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- ❖ The technical and commercial deviations should be indicated separately.
- ❖ If the bidder fails to enclose the technical compliance statement, the bid will be rejected.
- ❖ If the bidder furnishes document(s) (including compliance) or makes statement(s)/declaration(s) which is found to be false/wrong/forged at any point of time prior/during/post purchase process, the EMD of the bidder will be forfeited including cancellation of the bid, blacklisting of bidder/Manufacturer and appropriate legal action by the Institute. The decision of the Institute will be final in such cases.
- ❖ After opening of the price bid no clarification/query on technical aspects will be entertained by the Institute.

Signature and Seal of the Bidder

Place:-  
Date:-

**Form-6**

**Declaration by bidder**

**(Please specify Class of Supplier and Local Content percentage)**

**In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated : 04<sup>th</sup> June 2020 and 2<sup>th</sup> March 2021 issued by DIPP, Ministry of Commerce and Industries, GoI.**

To,  
The Chief Executive Officer  
Technology Innovation in Exploration & Mining Foundation  
3<sup>rd</sup> Floor, i2h Building,  
IIT (ISM) Dhanbad, Dhanbad- 826004.

Respected Sir,

In accordance with the order No. P-45021/2/2017-PP (BE-II) dated 04<sup>th</sup> June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4<sup>th</sup> March 2021 I hereby declare that

- i) I am aware about all provision mentioned in Tender No. «TEXMiN/Purchase/21-22/05 as well as order No. P-45021/2/2017-PP (BE-II) dated 04<sup>th</sup> June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4<sup>th</sup> March 2021 and abides by the same.
- ii) I declare that for this tender, I am a **Class-I local supplier / Class-II local supplier / Non-local supplier** (Strike out whichever is not applicable) and classification is based on local content of goods/services/work offered by bidder in this tender.

**iii) Local content (in percentage) in offered good/services/work is: \_\_\_\_%**

**Whereas '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.

- iv) The services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. are not included as Local content in case of imported products.
- v) The local content for all inputs which constitute the said goods/services/works has been verified and bidder is responsible for the correctness of the claims made therein.

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

**Form-7****Quality Control Requirements / Declaration by Tenderer**

[Supplier shall fill the following format and submit along with the bid.]

**Subject: Tender Enquiry No TEXMiN-Purchase-23-24-019-17 dated 31 May 2023**

Sl No.	Para-Meters	Requirements	Offered	Deviation, (if any.)
1.	Specifications	I shall supply, install & commission the material exactly as per specifications in ANNEXURE-I	Accepted	
2.	Contract Form	Duly filled, signed and sealed is to be submitted in the prescribed format as per <b>form-2</b>	YES (Page no. __)	
3.	Seal/Signature	All the pages of the Tender Documents are numbered, sealed, signed & Submitted.	YES	
4.	Authorization certificate	Tenderers have to submit Manufacturer's Authorization form certificate along with bid. <b>(Form-4)</b>	YES (Page no. __)	
5.	Other Essential Certificate	GST Certificate, TIN and Scanned Copy of PAN with the bid	YES (Page no. __)	
6.	Catalogue/ Brochures /technical literature	A catalogue giving the technical details of <b>"Supply &amp; Installation of Water Sprinkling System"</b> is attached.	YES (Page no. __)	
7.	Purchase orders	Copies of previous Purchase orders/Work Orders pertaining to Experience and Past Performance against Qualification/Eligibility criteria (if applicable)	YES (Page no. __)	
8.	Payment terms	Payment terms as per tender conditions is accepted	YES (Page no. __)	
9.	Delivery Schedule	Successful bidder should supply, install & commission the item within 45 <b>Days</b> after placement of Purchase Order	YES (Page no. __)	
10.	Compliance Statement	Submitted as per <b>Form-5</b>	YES (Page no. __)	
11.	EMD	Submitted in form of DD/PBG/Bid Securing declaration/ Valid Exemption Certificate	YES (Page no. __)	
12.	Bank Detail	The Bank/RTGS Detail on the letter head of the bidder(s)	YES (Page no. __)	
13.	Vendor's Registration Certificate	Registration Certificate to provide the Item/ services with the appropriate Govt. Authority.	YES (Page no. __)	
14.	Warranty Clause	The warranty clause as per tender conditions is accepted.	YES (Page no. __)	
15.	Class Of Supplier	Class of Supplier -----(Class I/class II/Non-local Supplier) in accordance with Order No. P45021/2/2017-PP (BE-II) dated 04 <sup>th</sup> June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI. (to be enclosed with the technical bid) <b>Form No.: 6</b>	YES (Page no. __)	

Yours faithfully,

Date:

Signature: Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

## Annexure-I

### Technical Specification for Supply and Installation of Water Sprinkling System in an Opencast Coal Mine of BCCL at Dhanbad:

#### Specification of Sprinkling System

Sl. No.	Item & Specification	Quantity
1.	<p><b>Sprinkler:</b>  Type: Part Circle, Impact type,  Throw radius: 15 m (37.5 LPM at 3 kg/cm<sup>2</sup> pressure)  Trajectory angle: 27°,  Body: Brass,  Spring &amp; pin: SS</p>	6 Nos.
2	<p><b>Solenoid valve:</b>  2/2 way, pilot operated, normally closed, full port, diaphragm type,  Size: 40 NB,  Body &amp; cover: ASTM A351, Gr. CF8,  Diaphragm: Neoprene,  Pressure range: 0.5 to 10 kg/cm<sup>2</sup>,  Temperature range: -5° to 85°,  Coil voltage: 230 V AC,  Coil insulation: Class F (continuous rating)</p>	3 Nos.
3.	<p><b>Pump:</b>  Type: Horizontal, centrifugal, Monoblock type, all complete  Discharge: 5 m<sup>3</sup>/h, at 42 m head,  Suction &amp; Delivery: 50 NB x 40 NB,  Casing, impeller, moor body: CI (FG 200),  Shaft: C40,  Motor: Squirrel cage, TEFC, Induction motor,  Make: ABB/CG/Eq.,  Rating: 3.7 kW  RPM: 2900,  Voltage: 415 V  Efficiency class: IE2</p>	1 No.



4.	<b>Motor Control Center:</b> Fabricated with 1.6 mm CRCA sheet, wall mounted, bottom detachable gland plate, powder coated, indoor type, incomer MCCB, MPCB in motor starter, 24V-10A DC output for automation panel, selector switch for Local/Remote operation with suitable relay interfacing with automation panel.	1 No.
5.	<b>Water tank:</b> PVC 5 kl capacity, vertical, cylindrical with manhole	1 No.
6.	<b>Pipeline:</b> GI, ERW, medium per IS:1239 (Part-I): 25 NB to 40 NB 1 lot <b>Pipe fittings:</b> GI, medium grade as per IS:1239 (Part-II) 1 lot	1 Lot.
7.	<b>Manual valves:</b> Ball valve, CF8 body & ball, SS-304 lever, PTFE seat, PN16 pressure class, screwed end, <b>Globe valve:</b> GM body, screwed in bonnet, inside screw, rising stem, integral seat, renewable seat, PN-16 pressure class, screwed end <b>Non-Return valve:</b> CF8 body, swing type, PN-16 pressure class, screwed end, <b>Pressure Relief valve:</b> Angle pattern, diaphragm type, spring loaded, CF-8 body, 1–6 kg/cm <sup>2</sup> pressure class, screwed end. <b>Y Strainer:</b> SS-304 body and element, 10 kg/cm <sup>2</sup> pressure class, screwed end.	1 Lot.
8.	<b>Field installation</b> of the above sprinkling system in an opencast coal mine of BCCL at Dhanbad as per the attached deployment/operation procedure and Figs. 1 and 2.	1 No.

**Supply, installation and operation of the sprinkling system should be done as per the following deployment layout and working methodology:**

The sprinkling system shall be installed to spray water around 100 m long haul road of 12 m width (Fig. 1) in an opencast coal mine in Dhanbad district. Pump will operate one group of 2 sprinklers sequentially. The sprinkling system shall function as described below.

#### **Pumping system:**

The heart of the system is the pumping system which shall be designed and installed in a pump house (Fig. 2) and operated as follows:

- Continuous water supplied by the mine shall be stored in a suitable size tank of 10 kl capacity adjacent to the pump house and water flow shall be controlled by the float valve inside the water tank which shall be fitted with the water supply pipeline.
- Water from the tank shall flow by gravity through a Gate valve and Duplex strainers to the pump suction.
- A pump (5 m<sup>3</sup>/h discharge at 42 m head) with a Gate valve at suction shall receive filtered water from the tank through the strainer.
- Pressurized water from the pump shall flow through a Non-Return valve and a Gate valve via a Globe valve and a Pressure gauge to the sprinklers headers.
- A bypass line with a Globe valve and a Pressure Relief valve shall be used to tune the pump head and also to return excess water when the spray is not in operation.
- A float valve in the tank shall stop water filling when the tank is full. The level switch shall give signal when the tank is half empty. The level switch shall also send a signal to the panel for stopping the pump in case the tank gets empty.
- A differential pressure switch installed across the Duplex strainer shall send a signal to the pump panel with an indication when the strainers need cleaning.
- A panel in the pump house shall be used to start and stop the pump before and after the sprinkling operation. The sprinkler shall be also operated manually/automatically from this panel.

### **Sprinkling system:**

Sprinkling system shall be designed, installed and operated to create artificial rain to keep the surface of the proposed haul road wet as per the details given below:

- The haul road of 100 m long and 12 width shall be covered with 6 Nos. of sprinklers with 3 solenoid valves, i.e., 2 sprinklers will be connected with 1 solenoid valve. Pump will operate one group of 2 sprinklers sequentially.
- Each sprinkler of 15 m through shall be installed on a riser pipe connected to the branch header at 1.5 m height, and the distance between the 2 sprinklers will be 17 m.
- The main header pipelines shall be laid underground along the haul road around 1 m away from the road edge.
- The sprinklers shall be part circle type (half circle) installed at regular intervals of 17 m so that the coverage area of the sprinklers overlaps to wet the entire road.
- Each set of sprinklers shall have a separate solenoid valve to operate the group of 2 sprinklers at a time.

### **Automatic operation of the sprinkling system with the buyer's wireless network and sensors:**

- ✓ Integrate potential free signal to Motor Control Center from the wireless and sensor network **of the buyer** to start and stop the pump,
- ✓ Integrate potential free signal to solenoid valves Center from the wireless network and sensors **of the buyer** to open and close the solenoid valves,

- ✓ Shall provide visual indication when tank is half empty i.e., level switch signal the panel for “Lo” level,
- ✓ Shall stop the pump to prevent run dry when level switch signal the panel for “VL” level,
- ✓ Shall provide visual indication when the Duplex strainer needs cleaning,

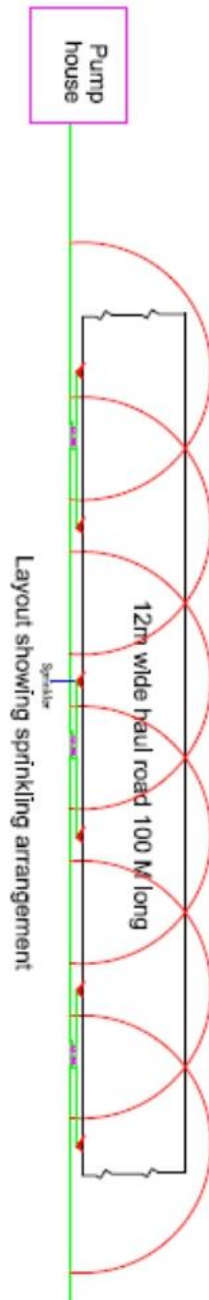


Fig. 1 Sprinkling System

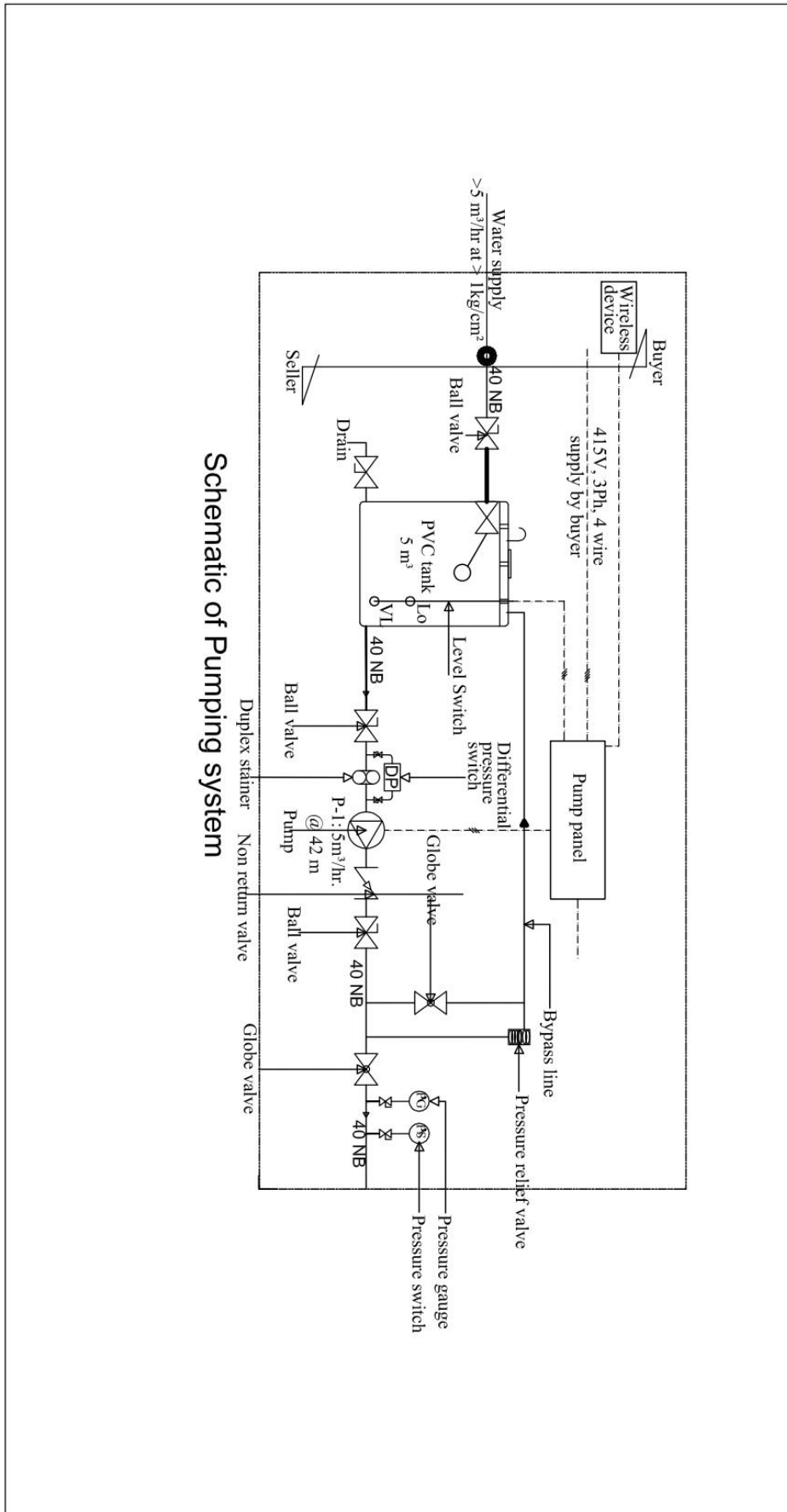


Fig. 2: Schematic of Pumping system

**PRICE SCHEDULE / PRICE BID (ANNEXURE-II)****Tender Inviting Authority: TEXMiN, IIT (ISM), Dhanbad****Name of Work: Supply and Installation of « Water Sprinkling System»****Tender No: «TEXMiN-Purchase-23-24-019-17» (To be submitted in hard copy only)****PRICE SCHEDULE****(This FORM must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )****If packing charges, transportation charges, insurance charges, Installation Commissioning & Training charges are already included in the unit price then please mentioned zero "0" in the respective cell.**

Name of the bidder														
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make/ HSN Code	Quantity	Units	Quoted Currency in INR	UNIT PRICE without any tax In Figures To be entered by the Bidder Rs.	SUB TOTAL AMOUNT Without Taxes	Packing & Forwarding if any (in INR)	Charge for Inland Transportation, Insurance, etc in INR	Installation Commissioning & Training in INR	TOTAL AMOUNT Without Taxes	GST in Percentage	TOTAL AMOUNT With Taxes	TOTAL AMOUNT IN WORDS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.01	Supply and Installation of «Water Sprinkling System»		0	set	IN		0.00					0.00	0.00	