

EXPRESSION OF INTEREST (EoI) FOR

Transfer of Knowhow

on

“Mechanical Dewatering and Drying System” (MDDS)

For

Faecal Sludge and Septage Management (FSSM)



CSIR-National Environmental Engineering Research Institute (NEERI), Nehru Marg, Nagpur
- 440 020 Maharashtra



May 2026

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1. Introduction

CSIR-NEERI has developed a FULL-SCALE holistic approach for faecal sludge (FS) treatment & management, which uses the concept of dewatering & drying, and complete elimination of pathogens, including recovery of treated FS in the form of organic fertilizer which conforms to the Fertilizer Control Order (FCO) India, 2013 Norms for use as organic fertilizer. The technology provides a complete, on-site treatment solution for faecal sludge—critical after India's Open Defecation Free (ODF) achievement and the construction of 102 million twin-pit toilets under Swachh Bharat Mission (SBM). The final product has massive domestic demand since 53% of Indian urban households rely on septic tanks, generating continuous FS volume. Organic manure from Faecal Sludge can substantially replace costly chemical fertilizers and serve agricultural, horticultural, and municipal markets.

CSIR- NEERI intends to transfer its know-how to OEM Companies / MSMEs / Consultancy firms/ Government Organizations etc. with Engineering and Scientific knowledge, good financial background and adequate experience of Filtration & drying operations / sewage and sludge treatment / Organic fertiliser applications. CSIR-NEERI shall grant a **non-exclusive license** for a period of five years for replicating this know- how countrywide.

2. About CSIR-NEERI

The CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) is a research institute created and funded by the Government of India. It was established in Nagpur in 1958 with a focus on water supply, sewage treatment, control of communicable diseases & industrial pollution. NEERI is a pioneering Institute in the field of environmental science and engineering and operates under the Council of Scientific and Industrial Research (CSIR). The Council of Scientific & Industrial Research (CSIR), known for its cutting-edge R&D knowledge base in diverse S&T areas, is a contemporary R&D organization under Ministry of Science & Technology, Govt. of India. CSIR-NEERI has five regional centres in Chennai, Delhi, Hyderabad, Kolkata, and Mumbai.

3. Details about technology

The novel scheme for treating the FS consists majorly four steps. The first step involves the addition of 10% lime solution and ploy-electrolyte (PE) to FS for the elimination of odours and enhance the filterability, followed by dewatering of FS to reduce the water content and

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then finally drying step to destroy the pathogens and minimize the moisture content, thereby the viable and favourable environmental conditions for the growth of pathogens could be eliminated. Raw FS having 97 – 99 % moisture content (MC) is initially treated with 10% lime and 0.1 % PE to increase pH from 6.8 to 8.0 and particle size, which enhances filterability using a 200 μ sieve and the dewatered sludge of 70 – 75% MC is obtained. The MC of the primary treated FS is further reduced from 70 – 75% to 40 – 45%. Drying of FS for 15 - 20 minutes at 90 –95°C completely removes Faecal Coliforms (FC). Finally, the product quality obtained after the treatment with the proposed scheme is verified with the Indian Standards of organic fertiliser for further applications, as documented in the Specifications of organic fertiliser given by Ministry of Agriculture (Government of India) 2013.

4. Target beneficiaries

The MDDS technology has wide scale application to all urban local bodies (ULBs), which do not have sewerage systems and is developed keeping in view the problems faced by a wide range of stakeholders engaged in on-site sanitation for faecal sludge management. The potential target beneficiaries include, all ULBs with provisions of septic tanks for sewage treatment, single & twin-pit toilets; decentralized townships with on-site sanitation; On-site sanitation in hilly areas and N-E states.:

5. Technology Transfer Package

The Transfer of Technology (ToT) package contains the following:

- A soft copy of the standard operating procedure and technical know-how in pen drive.
- Hands-on training about operation, process control and functioning of the MDDS technology.
- Technical consultation support for implementation for a period of 1 year.

6. Who can apply?

- Companies having experience in executing sewage and sludge / faecal sludge treatment plants / OEM on filtration and drying operation on large scale.

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- Experience of operation and maintenance of sewage / sludge / faecal sludge treatment plants / filtration and drying equipment / Agriculture reuse of organic fertilizer.
 - Companies should have its own technically competent team with experience in installation, operation and maintenance of filtration and drying techniques.

7. How to Apply?

- The EOI shall be submitted in **one bid** system.
- The interested firm should submit as **Technical Bid** in the format enclosed in **Annexure-B**.
- Firms are required to submit their Expression of Interest (EOI) in **hard copy, duly signed on each page**, addressed to the Director, CSIR–NEERI, Nehru Marg, Nagpur – 440020.

The submission address for the EOI is provided below.:

To

Scientist & In-charge

Business Development & Project Management Unit (BDPM), CSIR-

NEERI, Nehru Marg,

Nagpur 440020

- All the documents submitted by the selected firms should be signed and numbered.
- Bids that are incomplete in any respect or those that are not consistent with the requirements as specified in this document or those that do not adhere to formats, wherever specified may be considered non-responsive and may be liable for rejection and no further correspondences shall be entertained with such bidders.
- Canvassing in any form would disqualify the bidder.

8. Availability of EOI documents:

Bidders should download the complete set of EOI documents which is available in our website www.neeri.res.in. Bidders are requested to visit the website regularly for corrigendum towards any modification/ addition/ bid due date extension etc. for this EOI, since the same shall not be published in newspapers.

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9. Qualification Criteria:

- i. The organization must be
 - a. A reputed firm, Company, LLP, or MSME registered in India under the Companies Act for at least 3 years or more.
 - b. Must submit an audited balance sheet of preceding three years.
 - c. Must have a minimum of 3 years of experience in the sewage and sludge / faecal sludge treatment plants / OEM on filtration and drying operation on large scale.
 - d. The firm must not be blacklisted or debarred by any Central/State Government, PSU, or autonomous body. A self-declaration on company letterhead is required.
 - e. Must possess valid GST registration, PAN, and relevant industrial/manufacturing licenses (e.g., State Agriculture Dept. or Pollution Control Board) including accreditation (NABL, ISO, etc.)
- ii. The firm must have the adequate infrastructural facilities for implementation of MDDS technology.
- iii. Must have a proven track record of providing Contract Manufacturing services for third-party or customer-owned services
- iv. The applicant must have possession of a Solvency Certificate from a Scheduled/Nationalized bank for an amount not less than ₹10 Lakhs.

10. Process for selection of firm

- a) Technically qualified firms as per above will be called for discussion and presentation before Technology Transfer Committee of CSIR-NEERI before final acceptance as per CSIR-NEERI's approved procedure. The firms will be shortlisted based on the presentation, discussion and documents supporting experience of firm in water sector. The date of opening of financial bid will be informed to technically qualified bidder only.
- b) Technically qualified firms will be selected for the transfer of knowhow shall be executed through Licensing Agreement with standard terms and conditions.

11. Other Conditions

- i. CSIR-NEERI reserves the right to withdraw/cancel this EoI or this request for EoI without assigning/notifying any reason and/or invite afresh with or without amendments, without liability or any obligation for such request for EOI. Information provided at this stage is indicative and CSIR-NEERI reserves the right to amend/add further details at final stage of selection.

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- ii. The decision of the Director, CSIR-NEERI, Nagpur shall be final and shall be binding.
 - iii. CSIR-NEERI shall not be responsible for any expenditure incurred by the applicants in connection with the preparation and delivery of their applications or any other expenses incurred as regards the subject EoI.
 - iv. Telefax/ E-mail/ CD shall not be accepted if not accompanied with a formal signed document. CSIR-NEERI takes no responsibility for any delay/ loss during posting for non-receipt of document sent by Post/ Courier within the due date.
 - v. Mere submission of the proposal/ application does not entitle automatic qualification.
 - vi. Proposals found suitable shall be shortlisted for detailed discussion/ presentation by the Technology Transfer Committee (TTC) before final acceptance as per CSIR- NEERI's approved procedure.
 - vii. Any clarification against this EoI can be sought from the designated official(s) only in writing or through e-mail, which shall be clarified by the designated official only through e-mail. CSIR-NEERI may at its discretion extend this deadline for the submission of EOI.
 - viii. To assist in the examination, evaluation and comparison of EOI, CSIR-NEERI at its discretion can ask the bidder for the clarification or submission of additional information/documents. However, post submission of clarification at the initiative of the bidder shall not be entertained. Authority reserves the right to visit the facilities of the bidders if required.
 - ix. At any time before the submission of the bids against the EOI, the CSIR-NEERI may carry out amendments(s) to this EOI document and/ or the schedule. The amendment shall be made available on the website www.neeri.res.in and will be binding on them.
 - x. The Authority reserves the right to accept or reject any application without assigning any reason thereof.

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12. Contact person for enquiries about the technology

Dr. Girish R. Pophali	Scientist "G" and Chair, SMG CSIR-NEERI, Nagpur – 440 020 Email: girish.pophali@csir.res.in
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13. Submission of EOI

The EOI proposal should be submitted in one bid only. The Technical information may specify details and strength of the applicant as specified in **Annexure -B (from 1.0-1.6)**. The last date for submission of Eoi is extended up to **30/06/2026**.

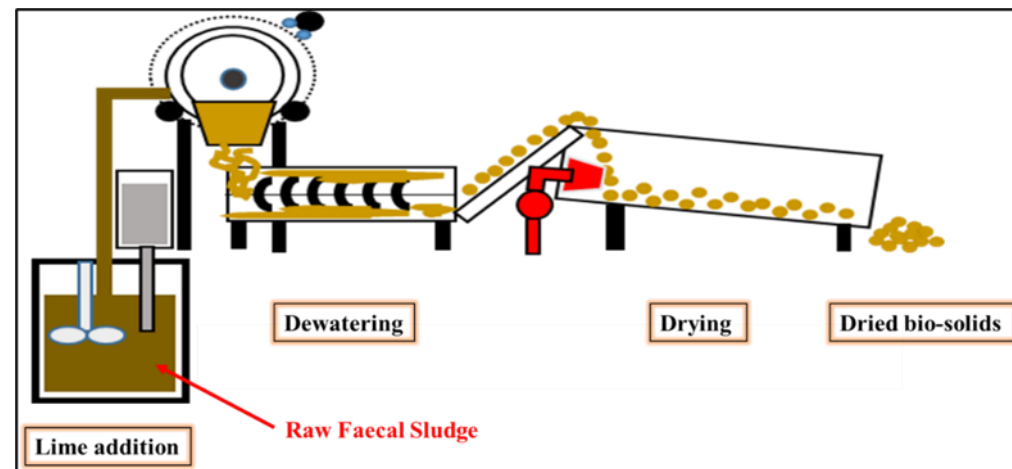
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Salient Features

- ❖ **High-Capacity Treatment:** Designed to process 65 m³/d of faecal sludge (FS).
- ❖ **Multi-Stage Process:** Combines lime dosing, mechanical dewatering, and thermal drying.
- ❖ **Lime Dosing Efficiency:** Uses 10% lime addition to improve filterability and odor removal.
- ❖ **Effective Pathogen Removal:** Drying at 90–95°C for 15 - 20 minutes ensures complete elimination of coliforms.
- ❖ **Product Recovery:** Pathogen-free organic fertilizer product compliant with Fertiliser Control Order (FCO), 2013 norms.
- ❖ **Low Footprint:** Scalable, compact system suitable for deployment in Urban Local Bodies (ULBs).

Beneficiaries:

- Urban Local Bodies (ULBs) including Municipal Sanitation Departments
- Waste Management Contractors
- Compost & Fertiliser Industries
- NGOs/Private Sectors in FSSM



Advantages

- ✓ Fast and effective FS treatment.
- ✓ Meets Indian organic fertiliser norms (FCO 2013).
- ✓ Pathogen-free and odorless end product.
- ✓ Easy scalability for urban areas.
- ✓ Reduces demand for chemical fertilisers.
- ✓ Contributes to the Swachh Bharat Mission (SBM) & Sustainable Development Goal 6 (SDG 6).
- ✓ Reduces groundwater contamination and health hazards.

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Technical Bid

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COVERING LETTER

(On Company/ Institute letterhead)

Date:

To,

DIRECTOR

CSIR-National Environmental Engineering Research Institute
Nehru Marg, Nagpur-440 020
Maharashtra, INDIA

Subject: Submission of Expression of interest (EOI) for Transfer of Mechanical Dewatering and Drying System" (MDDS) for Faecal Sludge and Septage Management (FSSM)

Dear Sir,

Having examined the Expression of Interest (Eoi) the undersigned, on behalf of our company intend to participate in EOI for Transfer of **MDDS** Knowhow and submit the Qualification requirements proposal in response to the Expression of Interest (Eoi) for the said EOI. We attach here with the response, as required by the Eoi, which constitutes our proposal.

I/We confirm that the information contained in this response or any part thereof, including its exhibits and other documents is true, accurate, verifiable and complete. I/We fully understand and agree to comply that on verification, incorrect information, if found to have been furnished the bid/ order is liable for rejection at any stage of evaluation/ work execution. Our Firm/Company agrees for acceptance of all the terms and conditions set out in the EOI documents. It is hereby confirmed that following employee we are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Our Authorised contacts for our company are:

Name:

Designation:

Address:

Phone No: & Mobile No:

Fax:/ E Mail:

(Signature and Seal of Company)

(In the capacity of Director/CEO)

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DETAILS OF THE COMPANY

	Item	Details (Attached True copy)
1.	Name of the party/legal entity With Year of establishment	
2.	Name of the Owner/ Founder contact details	
3.	Details of Directors	
4.	Details of Registration as an industry/legal entity (copy of certificate to be enclosed)	
5.	Address of works & Registered office premises	
6.	Certificate of Incorporation	
7.	PAN Number	
8.	GST Number	
9.	Udyog Aadhar	
10.	Details of office Premised/ branches/ industry etc.	
11.	Details of CEO/MD/GM	
12.	List of regular employees with qualifications, experience should be provided	
13.	Total Staff of Company	
14.	Details of work done in past 3 years. Copies of work orders, completion certificates etc.	

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FINANCIAL DETAILS OF COMAPANY

	FY 2022-23	FY 2023-24	FY 2024-25
Annual turnover			
Net Profit			
Net Worth			
Debt/Equity ratio			

Note- Please submit Audited Annual Reports containing audited balance sheets and profit loss accounts statements for preceding 3 financial years

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EXPERIENCE CRITERIA & PROVEN TRACK RECORD

List top five projects ongoing/ completed, if any (Last 3 years) in microbial bioculture/ formulation for water, waste and wastewater management sector

Name of the Project	Sponsoring Agency	Amount sanctioned (Rs Lakhs)	Amount released (Rs Lakhs)	Duration (in years) From- To	Awards (If any)

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BUSINNESS PLAN

[Details Business Plan for implementation of knowhow with clients/Water Boards/
Municipal Corporations/Operators, plan shall have details on the facts and figures]

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AFFIDAVIT

(On 100 rupees' stamp paper)

I, _____ Son of _____
 Aged _____ about _____ years, resident of _____
 _____ and
 _____ (Director/Partner/Proprietor) of
 _____ having its Registered office at
 _____, do hereby solemnly affirm and
 declare as under:

1. We are not debarred or black listed by any of the Government Authorities / Government Organization / Public Sector Undertakings / Private Organizations for carrying out any of the assignments, tasks, works, projects etc.
2. We have not defaulted in repayment of any of the undisputed dues raised / taken by us from financial institution / Non-Banking Financial Company (NBFC's) and banking companies.
3. No case of the fraud has been lodged against us by any of the stakeholders including Government departments, banks and financial institutions or any other Person / Organization.
4. We have complied with all regulatory and statutory requirements applicable to our organization till _____
5. We will abide by all the rules, regulations and directions given by CSIR-NEERI or any of the departments in relation to the projects for which such license is being allotted.

That the contents of this affidavit are true to the best of my knowledge and belief, and nothing in material has been concealed in.

I also acknowledge that CSIR-NEERI has right to cancel all the licenses granted in relation to which this affidavit is executed, if any of the information, explanation provided to CSIR- NEERI seems untrue.

Date: -

Place: -

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UNDERTAKING WITH REGARD TO NON-LITIGATION

(To be submitted on Company's Letter Head)

To DIRECTOR

CSIR-National Environmental Engineering Research Institute Nehru
Marg, Nagpur-440 020
Maharashtra, INDIA

Subject: Undertaking regarding Litigation

Dear Sir,

It is hereby confirmed and declared that M/s -----, does not have any litigation / arbitration history with any Government department/ Public Sector Undertaking/ / or any other public authority with which any MoU was / has been executed / undertaken.

Yours faithfully,

(Signature of the Authorized signatory)

Date:

Place:

Name:

Designation:

Seal:

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