

GOVERNMENT OF INDIA
MINISTRY OF MINES
NATIONAL MINERAL EXPLORATION AND DEVELOPMENT TRUST

F. No. 122/1/2025-NMEDT/515

New Delhi, 14.11.2025

OFFICE MEMORANDUM

Sub: Guidelines for Pilot Projects for Recovery of Critical Minerals from overburdens/tailings /fly ash/Red mud etc.

Union Cabinet on 29.01.2025 has approved the National Critical Mineral Mission (NCMM) with the objective to a) secure India's critical mineral supply chain by ensuring mineral availability from domestic and foreign sources and (b) strengthening the value chains by enhancing technological, regulatory and financial ecosystems to foster innovation, skill development, and global competitiveness in mineral exploration, mining, beneficiation, processing and recycling.

2. To ensure domestic availability of critical minerals, the NCMM provides for the promotion of pilot projects for mineral recovery, supported through funding from the National Mineral Exploration and Development Trust (NMEDT).

3. In furtherance of above, the Hon'ble Union Minister of Mines/Chairman, Governing Body of NMEDT has approved the Guidelines for Pilot Projects for Recovery of Critical Minerals from overburdens, tailings, fly ash, red mud, etc.

4. The approved guidelines are enclosed herewith for information and necessary action by all concerned.

Encl: As above

Geetika Sharma
(Geetika Sharma)
Director (Projects)

To,

1. Joint Secretary, National Critical Mineral Mission, Ministry of Mines, Shastri Bhawan, New Delhi-110001.
2. Director General, National Mineral Exploration and Development Trust, 2nd Floor, PTI Building, Sansad Marg, New Delhi-110001.
3. The Chief Executive Officer, Anusandhan National Research Foundation, 3rd & 4th Floor, Block II, Technology Bhawan, New Mehrauli Road New Delhi - 110 016
4. Dy. Director General, NMH-2, Geological Survey of India.
5. Director, National Critical Mineral Mission, Ministry of Mines, Shastri Bhawan, New Delhi.
6. Director, Jawaharlal Nehru Aluminium Research Development and Design Centre, Opposite wadi police station, Amravati Road, Wadi, Nagpur - 440 023, India.
7. Director (Tech.), Ministry of Mines, Shastri Bhawan, New Delhi-110001.
8. Director, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar - 751013, Odisha.
9. Director, Indian Institute of Science (IISc), CV Raman Road, Bangaluru-560012.
10. Director General, Centre for Materials for Electronics Technology (C-MET), Phase-III, HCL Post: Cherlapalli, Hyderabad-501302.
11. Director, IIT Hyderabad, IITH Road, Near NH-65, Sangareddy, Telangana-502285.
12. Director, IIT Roorkee, Roorkee-Haridwar Highway, Roorkee, Uttarkhand-247667.
13. Director, CSIR – National Mineral Laboratory, NML Gate-1 Road, Burma Mines Colony, Burma Mines, Jamshedpur, Jharkhand-831007.
14. Director, NFTDC, Nagarjun Sagar Ring Road, Kanchanbagh, Hyderabad, Telangana-500058.
15. Director/Deputy Secretary, IFD, Shastri Bhawan, New Delhi-110001.

Copy for information to:

1. PS to Hon'ble Union Minister of Mines/Chairman GB of NMEDT, Shastri Bhawan, New Delhi - 110001.
2. Addl. PS to Hon'ble Minister of State of Mines, Shastri Bhawan, New Delhi - 110001
3. PSO to Secretary, Mines, Shastri Bhawan, New Delhi-110001.

4. Sr. PPS to Joint Secretary and Financial Advisor, Ministry of Mines, Shastri Bhawan, New Delhi-110001.
 5. Joint Secretary (Admin.), Department of Science & Technology, Technology Bhavan, New Mehrauli Road, New Delhi-110 016- with request to nominate a director/ deputy secretary level officer from DST to attend meetings of Project Sanctioning Committee as member.
 6. Director General, Geological Survey of India, 27, J. L. Nehru Road, Kolkata-700016.
 7. Controller General, Indian, Bureau of Mines, 2nd Floor, Indira Bhawan, Civil Lines, Nagpur - 440 001- with request to nominate an officer from IBM not below the rank of director in Gol to attend meetings of Project Sanctioning Committee as a member.
 8. Director, IIT Bombay, Powai, Mumbai 400 076, Maharashtra, India.
 9. Director, IIT-ISM, Dhanbad-826004.
- } With request to
nominate a suitable
representative to
attend meetings of
TEC as member

Geetika Sharma
Geetika Sharma,
Director (Projects)

**MINISTRY OF MINES
NATIONAL MINERAL EXPLORATION AND DEVELOPMENT TRUST**

Guidelines for Pilot Projects for Recovery of Critical Minerals from overburden/tailings/fly ash/Red mud etc.

Background

Mineral resources have been fundamental to the development of human civilisation. For centuries, minerals have been used for diverse set of applications in the sectors such as trade, tools, infrastructure, agriculture, technology, energy and defence. Critical Minerals are the foundation of contemporary industrial economies, enabling technological advancements and boosting economies. However, their supply is vulnerable either in the form of their limited geographic occurrences or sourcing challenges.

In order to ensure the availability of critical minerals in the country, Ministry of Mines has carried out several policy reforms including release of a list of 24 critical minerals essential for the country.

FUNDING GUIDELINES

1. Introduction

The NCMM was approved by the Union Cabinet on 29.01.2025 to prioritise the exploration and development of mining activities for critical minerals. The objectives of National Critical Mineral Mission (NCMM) include (a) securing India's critical mineral supply chain by ensuring mineral availability from domestic and foreign sources and (b) strengthening the value chains by enhancing technological, regulatory and financial ecosystems to foster innovation, skill development, and global competitiveness in mineral exploration, mining, beneficiation, processing, and recycling.

These guidelines are being issued to provide financial support to carry out pilot projects of mineral recovery of critical minerals from overburden/tailings/fly ash/red mud etc. The National Critical Mineral Mission has a provision of Rs 100 crores for Pilot Projects for Recovery of Critical Minerals from overburden/tailings/fly ash/Red mud etc.

2. **Objectives:** The objectives of these guidelines to carry out pilot projects of mineral recovery of critical minerals from overburden/tailings/fly ash/red mud etc. are enumerated below:

a. Promoting recovery of critical minerals from mine tailings, dumps, etc.

- b. To encourage optimum recovery of critical minerals from secondary sources.
- c. To develop & commercialise innovative technologies for mineral recovery, and
- d. Promoting technologies such as hydrometallurgy, solvent extraction, electrochemical bio-hydrometallurgy, advanced separation techniques etc. for low grade or complex ore.

3. Implementing Structure:

Sl. No.	Component	Overarching Responsibility	Project Management Agency	Funding Agency	Funding Pattern
A	Pilot Projects under Ministry of Mines	Inter-Ministerial Project Sanctioning Committee	JNARDDC	NMEDT	Up to 90% of cost (max ₹20 Cr/project); minimum 10% from industry partner
B	Pilot Projects under Anusandhan National Research Foundation (ANRF)	ANRF	As applicable for CoE projects of critical minerals sanctioned by ANRF.	Co-financing by NMEDT	NMEDT to meet shortfall in the already approved projects of ANRF. The funding will be up to ₹20 Cr/project; minimum 10% of overall project cost by industry partner contribution

3A. Pilot Project Implementation under Ministry of Mines

The overall supervision shall lie with the Inter-Ministerial Project Sanctioning Committee (PSC) under Joint Secretary NCMM, Ministry of Mines and National Mineral Exploration and Development Trust (NMEDT) will be the funding agency. The composition of the Inter-Ministerial Project Sanctioning Committee is given below and the quorum for the meeting of PSC shall be five:

1	Joint Secretary –NCMM, Ministry of Mines	Chairperson
2	Director General, NMEDT	Member
3	Director JNARDDC	Member
4	Director /Deputy Secretary (IFD), Ministry of Mines	Member
5	Director (Technical), Ministry of Mines	Member
6	Director / Deputy Secretary level representative from Department of Science & Technology	Member
7	Representative from Indian Bureau of Mines not below the rank equivalent to Director in GoI	Member
8	Director (Projects)/Dy. Secretary (NMEDT), Ministry of Mines	Member Secretary

3A.1 Administrative Set-up

- The **Inter-Ministerial Project Sanctioning Committee (PSC)** of NCMM shall be the Apex body to take appropriate decision on the project proposals submitted for funding.
- Proposals will be recommended by the **Technical Experts Cost Committee (TEC)** after technical and financial evaluation, for the approval of PSC.

3A.2 Roles and responsibilities of the Project Management Agencies

The projects will be managed by the Project Management Agency (PMA) i.e. Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC). The roles and responsibilities of JNARDDC are as under:

The PMA i.e. JNARDDC shall carry out following functions:

- Receive the project proposals under this programme and carry out a preliminary scrutiny of the proposals before placing them before the TEC for evaluation;
- The PMA will convene the meetings of the TEC and maintain the records of discussion of the meetings;
- The PMA will convene the meetings of the PSC and maintain the records of discussions of the meetings;
- The PMA will monitor the progress of the pilot projects at regular intervals, prepare reports of such monitoring assessments and provide the reports to the TEC for review.

Functions of the Technical Expert Committee :

- A Technical Experts Cost Committee (TEC) consisting of following members will recommend for approval of the proposal, release of grant/continuity/extension/short- closure of projects/cost revision etc.

1	Director, Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC)	Chairperson
2	DS / Director (NCMM), Ministry of Mines	Member
3	DDG (NMH-Mission 2), Geological Survey of India	Member
4	Director, CSIR - Institute of Minerals and Materials Technology, Bhubaneswar	Member
5	Representative from IIT Bombay	Member
6	Representative from IIT-ISM, Dhanbad	Member
7	Representative from Industry relevant to the project	Member
8	Eminent persons relevant to the field may be co-opted by the	Member

Chairperson	
9 Any officer of JNARDDC nominated by Director, JNARDDC	Convenor

- ii. TEC will ensure technical and financial due diligence of the projects before recommending project proposals for consideration of PSC.
- iii. TEC will periodically monitor and review the technical and financial progress of the project.
- iv. The quorum for TEC meeting shall be five members present in physical or hybrid mode.

3A.3 Administrative Expenses of Project Management Agency

- The administrative expenses will be granted to JNARDDC at the rate of 2% of cost of every project.

3A.4 Signing of Agreement

- Post-approval of project proposal, an agreement will be executed between JNARDDC and the beneficiary outlining the roles & responsibilities of the parties, deliverables, and the terms of agreement.

3A.5 Fund Disbursement

- Funds will be released by NMEDT to JNARDDC upon receipt of approved PSC minutes. JNARDDC will further release fund to the project proponents/beneficiaries.
- Disbursement will align with GFR guidelines

3A.6 Monitoring

- TEC to monitor project progress periodically at least once in a quarter.
- Beneficiaries to submit quarterly reports and utilization certificates in prescribed formats.
- TEC to ensure timely and proper project implementation without time or cost overruns.
- To review fund utilization and decide on further release/holding back of funds
- JNARDDC to submit quarterly reports to the NCMM, Ministry of Mines & NMEDT.

3A.7 Eligibility Criteria

3A.7.1 Eligible Beneficiaries:

- Designated Centres of Excellence (CoE) of Ministry of Mines seeking

financial assistance in partnership with an industry partner.

3A.7.2 Co-financing

- NMEDT will fund maximum 90% of the project cost with a maximum ceiling of Rs. 20 Crore per project.
- Minimum 10% of the project cost will be borne by the industry partner.

3A.7.3 Project Leadership

- Each proposal must nominate a Project Lead (PL) responsible for technical and managerial execution.
- The Project Lead will sign the Project Agreement on behalf of the applicant(s) upon selection.

3A.8 Application Procedure and Implementation Methodology

3A.8.1 Submission and Screening

- Eligible beneficiaries would be required to submit pilot project proposals along with the detailed project reports to JNARDDC through email / hard copies for consideration.
- All applications will be initially scrutinized for eligibility check and completeness by the JNARDDC. Eligible applicants will be shortlisted by JNARDDC.

3A.8.2 Evaluation and approval

- Shortlisted applicants will be called to give a detailed presentation to showcase their project to the TEC.
- After due diligence, JNARDDC will present the recommendations to the Project Sanctioning Committee for approval.
- Post approval of PSC, the minutes will be sent to NMEDT Secretariat for issuance of Sanction Order / Office Memorandum, as the case may be, to JNARDDC.

3A.8.3 Fund Release and Monitoring

- Funds would be released by NMEDT to JNARDDC as per GFR guidelines.
- Disbursement would be aligned with project milestones.
- JNARDDC to submit utilization certificate to NMEDT.

3A.8.4 Review and Support

- JNARDDC will review and monitor the performance of the project during project completion and for two years post completion.
- JNARDDC will connect beneficiaries with PSUs/Academia or any other

institute/organization where Ministry of Mines has released fund for testing/pilots of technology/solutions developed.

3B. Pilot Projects under Anusandhan National Research Foundation (ANRF)

- The overall supervision lies with Anusandhan National Research Foundation (ANRF)

3B.1 Project Management Agency

- As applicable for CoE projects of critical minerals sanctioned by ANRF.

3B.2 Funding Agency

- Co-financing by National Mineral Exploration and Development Trust along with ANRF.
- To meet the shortfall in funding from ANRF with maximum limit of ₹20 Crore per project provided minimum 10% of the overall project cost is borne by an industry partner.

3B.3 Application Procedure and Implementation Methodology

3B.3.1 Submission and Screening

- The project proposals approved by ANRF for the designated CoE shall be sent by ANRF to Project Sanctioning Committee of Ministry of Mines.

• B.3.2 Evaluation and approval

- Project Sanctioning Committee shall examine the proposal and accord its approval if it is within the guidelines of NCMM for mineral recovery through recycling for critical minerals subject to availability of funds.
- Post approval of PSC, the minutes will be sent to NMEDT Secretariat for issuance of Sanction Order to the designated PMA and information to ANRF.

3B.3.3 Fund Release and Monitoring

- Funds would be released by NMEDT to the PMA as per GFR guidelines.
- Disbursement would be aligned with project milestones.
- The PMA to submit utilization certificate to NMEDT for the funds granted by NMEDT.

3B.3.4 Review and Support

- The PMA shall carry out quarterly monitoring of the approved projects and send report to NCMM, Ministry of Mines and NMEDT.
- The PMA to facilitate linkages of beneficiaries with PSUs and research institutes for testing of technology.

• 4. Recall of the Central Grant

- The PMA must ensure the Terms & Conditions are followed for Grant-in-Aid as per **Annexure I**.
- Project Sanctioning Committee retains the right to curtail/ recall the grant along with applicable interest calculated at 3 years SBI MCLR prevailing on the date of disbursement in case of unsatisfactory use of the grant, including compromise with the quality envisaged or partial/incomplete implementation of the project.

Annexure – I

Terms & Conditions for Grant-in-Aid

The grant is for the specific project as approved by the Project Sanctioning Committee under this programme and released by NMEDT, Ministry of Mines. It shall be subjected to the conditions listed below.

1. The grant amount shall be i) spent for the head for which it has been released within the specified time; and ii) Any portion of the grant, which is not ultimately required for expenditure for the approved purposes, shall be duly surrendered to NMEDT, Ministry of Mines;
2. The Project Management Agency should adhere to GFR guidelines while incurring expenditures out of grant released by NMEDT, Ministry of Mines under the project.
3. The Project Management Agency shall maintain an audited record in the form of a register in the prescribed proforma for permanent, semi-permanent assets acquired as solely or mainly out of grant released by NMEDT, Ministry of Mines.
4. The Project Management Agency shall also be responsible for obtaining all necessary statutory approvals/clearances including those for environmental compliance and quality standards as applicable;
5. The Project Management Agency shall furnish Utilization Certificate (UC) along with its request for next release of Grant in Aid certifying that the fund released to them for which UC has been furnished is as per the objective of the guidelines;
6. The Project Management Agency shall render progress-cum-achievement reports at interval of not exceeding six months on the progress made on all aspects of the project including expenditure incurred on various approved items during the period or as and when called upon by NMEDT, Ministry of Mines;
7. The Project Management Agency shall render an audited statement of accounts to NMEDT, Ministry of Mines. The financial assistance given under these guidelines shall be subject to audit by CAG of India/ internal audit by Principal Account office of Ministry of Mines.
8. The audited statement of accounts relating to grants given during financial year together with the comments of the auditor regarding the observance of the conditions governing the grant should be forwarded to the NMEDT, Ministry of Mines within six months following the end of the relevant financial year;
9. The utilization of grant for the intended purposes will be looked into by the Auditor of Project Management Agency according to the directives issued by the Government of India from time to time and the specific mention about it will be

made in the audit report;

10. NMEDT, Ministry of Mines or its nominee(s) will have the right of access to the books and accounts of the implementing agency for which a reasonable prior notice would be given;

11. The Project Management Agency should maintain separate audited account for the project. If it is found expedient to keep a part or whole of the grant in a bank account earning interest, the interest, thus earned should be reported to NMEDT. All Interest against Grant- in-aid should be mandatorily remitted to the Consolidated Fund of India immediately after finalization of the accounts.

12. The Intellectual property and the rights associated with it shall be agreed between the participating organizations before the start of the project.

13. Application by the Project Management Agency for any other financial assistance or receipt of grant/ loan from any other Agency/ Ministry/ Department for this project should have the prior approval of NCMM, Ministry of Mines;

14. In case of any dispute on any matter, related to these guidelines during the course of its implementation, the decision of the Secretary, Ministry of Mines and Chairperson, Executive Committee of NMEDT, shall be final and binding.