

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

F.No.122/1/2025-NMET/653

New Delhi, 18th December, 2025

Subject: Circulation of minutes of 1st meeting of Inter Ministerial Project Sanctioning Committee of NCMM held on 8th December, 2025

Please find enclosed herewith the minutes of 1st meeting of Inter Ministerial Project Sanctioning Committee of NCMM held on 8th December, 2025 for kind information.

Encl: As above

Yours faithfully,



[Geetika Sharma]

Director (Project) & HoD, NMEDT

To all attendees of PSC Meeting

1. Joint Secretary, National Critical Mineral Mission, Ministry of Mines,
2. Director General, National Mineral Exploration and Development Trust,
3. Director, Jawaharlal Nehru Aluminium Research Development and Design Centre,
4. Director (Technical), Ministry of Mines,
5. Deputy Secretary, IFD, Ministry of Mines,
6. Shri V.A.J. Aruna, Superintendent Officer (Ore Dressing), Indian Bureau of Mines,
7. Dr. Karthik Dhandapani, Scientist-C, Department of Science and Technology, Technology Bhavan.

Ministry of Mines
National Mineral Exploration & Development Trust
Minutes of 1st Project Sanctioning Committee meeting of NCMM
held on 8.12.2025 at 4:00PM

The meeting of 1st Project Sanctioning Committee (PSC) of National Critical Mineral Mission constituted under the Guidelines for Pilot Projects for Recovery of Critical Minerals from overburden/tailings/fly ash/red mud etc. was held under the Chairmanship of Shri. Vivek Kumar Bajpai, Joint Secretary, NCMM, Ministry of Mines on 8.12.2025 at Aluminium Hall, Shastri Bhawan, New Delhi in hybrid mode. The list of participants is given at Annexure-1.

Smt. Geetika Sharma, Deputy Secretary, MoM and Member Secretary, PSC, extended a warm welcome to all members and informed that one project proposal of NFTDC, recommended by the Technical Experts Cost Committee (TEC) at its 1st meeting, has been placed before the PSC for consideration.

Agenda 1.1: Consideration of project proposal submitted by Nonferrous Materials Technology Development Centre (NFTDC)

PSC was apprised that NFTDC had submitted a proposal to Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC) for Establishment of Pilot Line for Rare Earth Mineral(s) Separation from Multiple feedstocks for funding from NMEDT, under the Guidelines for Pilot Projects for Recovery of Critical Minerals from overburden/tailings/fly ash/red mud etc. (hereinafter referred to as Guidelines). The objectives of the project are outlined below:

- To enhance the technical infrastructure in beneficiation and SX lines in NFTDC to cater to recovery of REEs and dovetail it with REPM manufacturing line with emphasis on major six MREOs (Magnetic RE oxides), namely Nd, Pr, Dy, Tb and Sm+Gd;
- To establish a Pilot plant Line with all necessary equipments for beneficiation and REE oxide production at appropriate scale and size (100 kg batch input feed) to handle multiple feedstock containing REEs, covering physical separation, beneficiation and solvent extraction;
- To conduct process optimization for different feedstocks at pilot scale;
- To establish 100% feedstock utilization with by-product manufacture as per the salient features of feedstock;

- Techno-economic studies as per need of the CoE industry members
- To continue the operation of pilot plant as per evolving project requirements from clients and CoE industry members;
- Enable concurrent setting up of commercial scale plant for REE oxide plants with industry partners so as to achieve augmented domestic production of 1000 TPA by 2027-2030 from secondary and tertiary sources.

Dr. Anupam Agnihotri, Director JNARDDC apprised the house that NFTDC has submitted the proposal in partnership with Midwest, Kerala Mines and Metals Ltd. (KMML) and Singareni Collieries Company Ltd. (SCCL). He also apprised that there will be two feedstocks for REE beneficiation, one is from **Monazite bearing residues** and the other one is from **Clay based REEs**. Monazite bearing residues will be made available by KMML and Clay based REEs will be made available by SCCL while Midwest will be responsible for making REPM. The deliverables of the project are given below:

- Pilot Line with all separation processes in modular format (100 – 250 kg batch).
- Process optimization for different feed stocks at pilot scale at NFTDC and tonnage scale at Industry site.
- Interact with potential companies with their input feedstock and take in their raw materials and process the materials once the pilot plant is set up and running. Important clients such as KMML, Midwest, SCCL are already tied-up and industry sites being readied.
- Skill development programme can be dovetailed to this pilot plant as per the norms of the skilling programme under NCMM.

The proposed cost and duration of the project including industry contribution is given below:

Sl. No.	Title of the project	Duration	Total Cost of the project (Rs. in lakh)	Industry Funding (Rs. in lakh)	MoM, NMEDT funding (Rs. in lakh)
1	Establishment of Pilot Line for Rare Earth Mineral(s) Separation from Multiple feedstocks	24 months	1882	381	1501

Discussion:

- Chairman, PSC enquired about the ownership of the technology after completion of the project. In response, Director, JNARDDC stated that ownership of the technology would vest with NFTDC and Ministry of Mines can be part of the IP.
- Director General, NMEDT and Member, PSC observed that as per the existing MoU between NFTDC and SCCL, the Intellectual Property Rights (IPR) would vest with SCCL; however, considering that SCCL's financial contribution is relatively limited, this clause needs to be deleted. Director, JNARDDC clarified that the MoU attached with the proposal is generic and that if the project proposal is approved NFTDC shall execute project-specific MoUs with its industry partners.
- Shri VAJ Aruna, Superintending Officer (Ore Dresser), IBM and Member, PSC pointed out the following
 - i. It is stated in the proposal that the Quartz+Sand separated are pumped back for land filling. As Quartz+Sand can also be upgraded and recovered as a side product, land filling is not the right option.
 - ii. In solvent extraction, PC88A is found to be a suitable solvent extraction agent. The number of cycles for which the extraction agent can be recycled is to be mentioned to calculate the operation cost.
 - iii. All the additional products that could be recovered from a particular feed should be mentioned, to decide the project viability.
 - iv. Director, JNARDDC stated that the solvent extraction agent can be recycled and reused multiple times. He also apprised that silica rich refractory material will be the side product which can be used in refractory industry. Apart from this, the left over material will be High Alumina Mullite and Fused Mullite which can be used in electric arc furnaces. Further, it was apprised that quartz+sand separated during the process can also be used as refractory material, however its use as back filling material is not economically viable.
- Director (Tech.) pointed out that as per the proposal the pilot plant would be established in NFTDC and a demonstration scale pilot plant would be established at KMML and SCCL; whether these pilot plants can be designated as National Facility at a later stage.

Director, JNARDDC apprised that the existing NFTDC semi-pilot plant will be upgraded into a pilot plant for their REPM, which will cater to Midwest whereas for separation of Monazite bearing REEs and Clay bearing REEs, a demonstration scale pilot plant will be set up at KMML and SCCL as they are supplying the raw material. It was further apprised that these plants can be

designated as National Facility, the services of which can be utilized by other stakeholders on payment basis. On the basis of success of the pilot project, commercial scale plants will be developed.

- Dr. Karthik Dhandapani, Scientist-‘C’, DST and Member, PSC commented that in their proposal NFTDC have mentioned procurement of instruments like XRF, XRD, ICP-OES for testing and characterizing samples. Since NFTDC already have such equipments, their utility should be properly justified. He further mentioned that contingency charges of Rs. 14 lakhs have been claimed along with Miscellaneous Charges of Rs. 10 lakh (included within Other Cost i.e. Rs. 150 lakh); these charges being similar, a view be taken to remove the duplicacy.

Director, JNARDDC stated that the requirement of equipments has been deliberated by the Technical Experts Cost Committee members in detail and it has been observed that the equipments proposed are required. A large number of samples would be generated during the execution of the project for which exclusive instruments would be required.

- Director General, NMEDT and Member, PSC observed that NFTDC have claimed Rs. 135 lakh towards Overhead Charges, but there is no provision in the Guidelines for funding such Overhead Charges. Hence, the amount claimed towards Overhead Charges be reduced from the proposal. DG, NMEDT further advised that JNARDDC monitor the progress of the project quarterly and also ensure that all the procurement under the proposal is made as per the GFR, 2017.

Decision of PSC: The PSC approved the NFTDC project titled “Establishment of Pilot Line for Rare Earth Mineral(s) Separation from Multiple Feedstocks” with the project cost of Rs. 1733 lakh, excluding overhead and contingency charges, with a project duration of 24 months, with the following observations:

1. NFTDC shall execute project-specific MoUs with its industry partners therein specifying that ownership of the technology developed under the project shall vest with NFTDC.
2. Institute Overhead Charges of Rs. 135 lakh and Contingency Charges of Rs. 14 lakh shall be excluded from the contribution of Ministry of Mines, since these charges are presently not covered under the Guidelines. Accordingly,

the NMEDT funding for the project would be reduced to Rs. 1352 lakh. The revised funding details are as under :

Title of the project	Duration	Approved Cost of the project (₹ in lakh)	Industry funding (₹ in lakh)	MoM, NMEDT funding (₹ in lakh)
Establishment of Pilot Line for Rare Earth Mineral(s) Separation from Multiple feedstocks	24 months	1733	381	1352

3. Director, JNARDDC shall review progress of the project on quarterly basis and shall ensure that procurements under the project are made in compliance with GFR, 2017.
4. Prior to evaluating any new proposal, the TEC must deliberate on the issue whether procurement of new instruments is genuinely necessary, or whether the existing laboratory facilities can be utilised, to ensure optimal and efficient use of Government funds.
5. Director, JNARDDC to review the requirement of Overhead and Contingency charges and if required a separate proposal with detailed justification may be submitted to NMEDT for suitable consideration.

Annexure-1

List of Participants

Sl. No	Name	Designation	Mode of Joining
1.	Shri. Vivek Bajpai Joint Secretary, NCMM	Chairman	Physical
2.	Shri. Pankaj Garg Director General, NMEDT	Member	Online
3.	Shri. Anupam Agnihotri Director, JNARDDC	Member	Online
4.	Shri. Yogendra Singh Bhamboo Director (Tech.)	Member	Physical
5.	Shri. Thaneshwar Kumar Under Secretary, IFD	Member	Physical

	Representative of Dy. Secretary, IFD		
6.	Shri. Kathik Dhandapani Scientist-C, DST Representative of Dr. Manoranjan Mohanty, Head NAMD, DST	Member	Online
7.	Shri. V.A.J Aruna Superintending Officer (Ore Dresser), IBM	Member	Physical
8.	Smt. Geetika Sharma Director (Projects), NMEDT	Member Secretary	Physical