

28

IREL (INDIA) LIMITED

DEPARTMENT OF ATOMIC ENERGY

**COMMITTEE ON PUBLIC UNDERTAKINGS
(2025-26)**

**TWENTY-EIGHTH REPORT
(EIGHTEENTH LOK SABHA)**



LOK SABHA SECRETARIAT

NEW DELHI

TWENTY-EIGHTH REPORT

COMMITTEE ON PUBLIC UNDERTAKINGS (2025-26) (EIGHTEENTH LOK SABHA)

IREL (INDIA) LIMITED

DEPARTMENT OF ATOMIC ENERGY

**[Action Taken by the Government on the Observations/
Recommendations contained in the Twelfth Report of the Committee on
Public Undertakings (18th Lok Sabha) on IREL (India) Limited]**

*Presented to Lok Sabha on 11 December, 2025
Laid in Rajya Sabha on 11 December, 2025*



**LOK SABHA SECRETARIAT
NEW DELHI**

December, 2025/ Agrahayana, 1947(Saka)

CPU No. 1084

Price : Rs.....

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Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Seventeenth Edition) and Printed by Lok Sabha Secretariat, New Delhi-110001.

CONTENTS

| | | Page No. |
|--------------------|---|-----------------|
| | COMPOSITION OF THE COMMITTEE (2025-26) | iv |
| | INTRODUCTION | v |
| CHAPTER I | REPORT | 1 |
| CHAPTER II | Observation/Recommendations which have been accepted by the Government | 16 |
| CHAPTER III | Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies | 32 |
| CHAPTER IV | Observations/Recommendations in respect of which replies of Government had not been accepted by the Committee and which require reiteration | 33 |
| CHAPTER V | Observations/Recommendations in respect of which the Government has furnished interim replies and final replies are still awaited | 34 |

APPENDICES

| | | |
|-----|---|----|
| I. | Minutes of the 15 th Sitting of Committee on Public Undertakings (2025-26) held on 05 December, 2025 | 39 |
| II. | Analysis of the Action Taken by the Government on the Observations/Recommendations contained in the Twelfth Report of Committee on Public Undertakings (18 th Lok Sabha) on 'IREL (India) Limited' | 41 |

COMPOSITION OF THE COMMITTEE ON PUBLIC UNDERTAKINGS (2025-26)

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LOK SABHA

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3. Shri Sudip Bandyopadhyay
4. Shri Chandra Prakash Joshi
5. Smt. Kanimozhi Karunanidhi
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SECRETARIAT

1. Shri Anjani Kumar - Joint Secretary
2. Smt. Mriganka Achal - Director
3. Shri Tenzin Gyaltzen - Deputy Secretary
4. Shri L. Shantikumar Singh - Executive Officer

INTRODUCTION

I, the Chairperson, Committee on Public Undertakings (2025-26) having been authorized by the Committee to submit the Report on their behalf, present this Twenty-Eighth Report on Action Taken by the Government on the Observations/Recommendations contained in the Twelfth Report of the Committee on Public Undertakings (18th Lok Sabha) on 'IREL (India) Limited'.

2. The Twelfth Report of the Committee on Public Undertakings (18th Lok Sabha) was presented to Lok Sabha and laid on the Table of Rajya Sabha on 18 March, 2025. The Action taken Replies to all the eight (08) Observations/Recommendations contained in the Report were received from the Department of Atomic Energy (DAE) on 26 September, 2025.

3. The Committee considered and adopted the draft Report at their sitting held on 05 December, 2025. The Minutes of the sitting are given in Appendix-I.

4. An analysis of the action taken by the Government on the Observations/Recommendations contained in the Twelfth Report of the Committee (18th Lok Sabha) is given in Appendix -II.

**New Delhi;
08 December, 2025
17 Agrahayana, 1947(S)**

**BAIJAYANT PANDA
Chairperson
Committee on Public Undertakings**

REPORT
CHAPTER I

This Report of the Committee deals with the action taken by the Government on the Observations/Recommendations contained in the Twelfth Report (18th Lok Sabha) of the Committee on Public Undertakings on IREL (India) Limited, which was presented to Parliament on 18 March 2025. It contained eight (08) Observations/Recommendations.

2. Action Taken Notes have been received from the Government in respect of all the eight (08) Observations/Recommendations of the Committee and since the Observation/Recommendation Sl. No. 1 was introductory, the Government did not offer comments on it. The eight (08) Observations/Recommendations have been categorized as follows:

| | |
|--|----------------------|
| (i) Observations/Recommendations which have been accepted by the Government | (Chapter II) |
| Sl. Nos. 1, 3,5, 6, 7 & 8 | (Total: 06) |
| (ii) Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies | (Chapter III) |
| Nil | (Total: 00) |
| (iii) Observations/Recommendations in respect of which replies of Government have not been accepted by the Committee and which require reiteration | (Chapter IV) |
| Nil | (Total: 00) |
| (iv) Observations/Recommendations to which the Government has furnished interim replies and final replies are still awaited | (Chapter V) |
| Sl. Nos. 2 & 4 | (Total: 02) |

3. **The Committee desire the Department of Atomic Energy (DAE) to furnish final Action Taken Notes/Replies in respect of Observations/Recommendations contained in Chapter I of the Report. The Committee further desire that the final**

replies in respect of Observations/Recommendations contained in Chapter V for which only interim replies have been given by Government, should be furnished to the Committee expeditiously.

4. The Committee will now deal with the Action Taken by the Government on some of the Observations/Recommendations of the Committee in the succeeding paragraphs.

VACANT POSITIONS OF REGULAR CMD AND FOUR INDEPENDENT DIRECTORS (Recommendation No. 2)

5. The Committee, in their Twelfth Report, had recommended the following with regard to vacancies in the Board of Directors:

“The Committee note that there is no regular CMD since the superannuation of the officer who held the post of CMD on 30 November 2024 and since then the Director (Finance) has been holding the additional charge of CMD. Moreover, all the four (04) posts of Non-official Independent Directors are vacant and consequently, the Board strength has been reduced to half of the total sanctioned strength of 12. Though the Committee learned that IREL has already taken up the matter with the appropriate authority and their response is awaited, the Committee feel that these vacancies not only hamper the functioning of the Company, but also violate the principle of Corporate Governance. Therefore, the Committee urge upon the Government of India through DAE, being the administrative Ministry, to fill up the vacant posts of four Independent Directors and appoint a regular CMD without any further delay. Also, if the Company is discharging their functions effectively with less number of Independent Directors, they may think of reducing the sanctioned posts of Directors in the organization in future.”

6. DAE, in their action taken reply, have stated as follows:

"As per the DPE Guidelines on Corporate Governance dated 14.05.2010, unlisted CPSEs are required to have at least one-third of the Board Members as Independent Directors. The Department of Atomic Energy, vide its letter dated May 4, 2018, stipulated that the Board of IREL should comprise four Independent Directors. Accordingly, the company has consistently endeavoured to ensure adequate number of Independent Directors on its Board.

Department has requested DPE through its various correspondences in the last one year for appointment of Non-Official Directors (NoDs) and is continuing to follow up with them. As efforts are under taken to fill up the vacant NoD position in Board in consultation with DPE, no need is felt to reduce the sanctioned posts of Directors in IREL.

With regard to the appointment of regular CMD, PESB has already conducted the interview and recommended the candidate, which is under process for ACC approval.”

7. The Committee acknowledge the progress made with regard to the appointment of a regular CMD, with the Public Enterprise Selection Board’s (PESB) recommendation under process for the Appointments Committee of the Cabinet’s (ACC) approval. However, the Committee note that despite such efforts and persuasion by the Company, the appointment is not finalized and a regular CMD has not been appointed yet. At the same time, the Committee would like to point out the issue of continued vacancy of all four Non-official Independent Director posts and the ongoing pendency on the part of the Department of Public Enterprises (DPE). The Committee underscore that the absence of Independent Directors reflects challenges in consistently meeting corporate governance norms and guidelines. In this regard, DAE is encouraged to explore timely measures that reinforce alignment with established norms and expectations. The Committee consider the current response as interim reply and express their confidence that further progress will be made in due course.

EXPLORING WAYS TO ESTABLISH RE ECOSYSTEM IN INDIA (Recommendation No. 3)

8. The Committee, in their Report, had recommended the following with regard to lending margins:

"The Committee note that creating an ecosystem of REs is very long drawn process and it consists of ten to twelve segments and unless all the segments are developed, any country cannot benefit from the ecosystem in order to move ahead. The Committee also learned that the monopoly that China has established is such that it has established the entire segments and for that to happen, it gave a red-carpet welcome to international investments with no conditions. So, international investors worked in China for 5 years and during this period the Chinese developed the required skilled manpower and consequently they were able to establish their own RE industry of the entire value chain. This kind of ecosystem has been developed there and due to this, the Chinese monopoly got established in the global RE market.

The Committee are happy to note that India has also gained the requisite expertise over the years in the mining and processing of REs, which in India’s case is

radioactive too. IREL also has the capability to extract REs out of the far inferior and very less concentrated Indian RE ores, India's RE content being 0.056 to 0.058% whereas that of China is 6%. It is also learned that over 90% of IREL customers in India are in MSE (Micro and Small Enterprises) category. The processed minerals and chemicals produced by IREL are supplied to about 2000 industries (mostly MSEs) operating in the downstream sector. They make ancillary products for bigger companies, resulting in import substitution and promote the Make in India initiative of the Government of India.

The Committee feel that IREL and DAE may consider exploring ways for bringing skilled manpower and required expertise to further/fully develop the entire RE ecosystem to cater to the entire rare earth value chain in order to be able to counter to a certain extent China's monopoly in the global RE market. The Committee would like to be apprised of the steps taken in this regard."

9. DAE, in their action taken reply, has stated as follows:

"The Rare Earth (RE) bearing mineral in the Indian reserves has a very lean content of RE to the tune of 0.056-0.058% and is associated with radioactivity. Hence, a long drawn eco-system is required to move from reserves to finished product comprising of multiple processes/plants. This includes obtaining statutory clearances, mining, mineral beneficiation, upgradation of RE bearing mineral, RE extraction, refining to oxides, metal extraction, etc. Specific to RE magnet, one need to convert metal to alloy and then to magnet. Thereafter, application of finished product as motor finds use in energy saving appliances.

While India has existing facilities from mining to separation, extraction and refining to oxide form and has also developed capability of metal extraction, but further industrial scale facilities (intermediate) to alloy, magnet etc. are non-existent. To address the issue of lack of industries in the intermediate value chain, IREL has established a Rare Earth & Titanium Theme Park at Bhopal. At this facility, rare earth metals have been produced for the first time in the country. Mini plants for the production of Cerium, Lanthanum and Neodymium Metals along with recovery of magnetic Rare Earths from end-of-life magnets have been established with the technology established by BARC on Lab scale. This ecosystem so created is established with a view to upscale the scientific principles proven at laboratory to pilot scale and demonstrate the same to aspiring Industries to set up commercial operations. This is an attempt to pave way for furthering the RE value chain from the upstream sector to mid-stream sector by allowing private industries to familiarize themselves with the process and gain hands-on-experience. Further, this serves as a training ground for the industries to develop the necessary skillsets.

Once the industry scale-plant is established, the requisite skill set for magnet making, a crucial component of the REE value chain, can be developed.

In addition, the following steps have been taken by the Government of India:

1. National Critical Mineral Mission (NCMM) has been launched by Government of India in January 2025 for promoting exploration, mining, beneficiation,

processing, recycling, etc. of critical minerals which also include REEs. It also promotes acquisition of assets abroad which may help in assisting in stockpiling of resources of magnetic and heavy REEs (which are not available in Indian resources).

2. Government of India is in the process of framing a policy to establish downstream Industry using REE. This would pave the way for establishment of Industries in the Intermediate RE value chain for the production of magnets which are used in national security, atomic energy, green sector, etc. Once the magnet making industries are established, skills associated with the process can be passed on to the workforce.”

10. The Committee appreciate the initiatives taken by IREL and DAE, particularly with regard to the setting up of Rare Earth & Titanium Theme Park as a demonstrator and training ground. Further, the launch of the National Critical Mineral Mission (NCMM) and the process of framing a downstream industry policy is also a welcome step in the right direction. To improve further, the Committee desire that concrete steps may be taken to scale these pilot facilities into full-fledged industrial operations of international standards, if possible, in partnership with private players (domestic or international companies) with a long-term vision, especially to counter the dominance of other Countries in this field. The Committee also desire to set timelines to achieve the goal and close monitoring of the same so that India can emerge as a competitive player in the global RE market.

**DELAY IN STARTING OPERATION OF IREL-IDCOL LIMITED
(Recommendation No. 4)**

11. The Committee, in their Twelfth Report, had recommended the following regarding IREL-IDCOL:

"The Committee note that IREL has formed a Joint Venture (JV) Company called IREL-IDCOL Limited in collaboration with Industrial Development Corporation of Odisha Limited (IDCOL). The JV Company was incorporated on 18.01.2018 with IREL holding minimum 51% and IDCOL holding upto 49% of the share capital. A CEO and a Project Co-Ordinator have been appointed for the JV Company. A mining Officer of IREL is assisting the Project Co-ordinator in matters related to the JV Company and rest of the manpower support is occasional and are being drawn from IREL.

The Committee further note that IREL-IDCOL is under the process of obtaining mining lease for which the process of statutory clearances such as Environmental

Clearance (EC), Forest Clearance (FC), Coastal Regulation Zone (CRZ), etc. have been taken up. Because of not getting timely clearances of the above statutory clearances, starting of operation of the Company is getting delayed. The Committee recommend that the issues pertaining to granting of clearances of the above statutory clearances may be taken up at the level of the Department so that the process may be expedited and IREL-IDCOL may start operation without any further delay.”

12. DAE, in their action taken reply, has stated as follows:

“Formation of JV Company and Issuance of Letter of Intent (LOI):

The IREL-IDCOL Joint Venture company was incorporated on 18.01.2018. The Letter of Intent (LoI) from the Government of Odisha, covering an area of 852.459 Ha, was issued in June 2022. This resulted in significant delay in initiating project-related activities. The sequence of activities towards receiving LoI are as under:

- IREL applied for grant of Mining lease for an extent of 974.369 Ha. in May 2018.
- AMD confirmed the availability of Geological Report (GR) for 875 Ha under Rule 4 (5)b of AMCR 2016 and the GR was submitted to State Govt. in February 2019.
- The field survey was started in February 2020.
- In October 2020, Government of Odisha after the field survey requested DAE to nominate IREL IDCOL Ltd as prospective lessee. The same was received in January 2021 from DAE.

ToR and Environmental Clearance Process:

- Form-1 and the Pre-feasibility Report were submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 30.01.2024. The proposal was considered in the Expert Appraisal Committee (EAC) meeting held on 06.03.2024 and the Terms of Reference (ToR) were issued on 12.04.2024. Compliance with ToR conditions is completed. On account of the delay in obtaining the Forest Clearance, the submission of Environmental Impact Assessment (EIA) report is on hold.
- No sooner the CRZ and Forest recommendations are received, the proposal would be submitted for grant of Environmental Clearance.

Forest Land Diversion Requirement

Government of Odisha issued LoI for 852.459 Ha of land to JV company. During the application process, it was informed by the Divisional Forest Officer (DFO), Chilka about the presence of 527.83 Ha under Pitisal Proposed Reserve Forest (PRF) in the lease area. While giving clearance for the Differential Global Positioning System (DGPS) survey, the DFO, Chilka requested to carry out DGPS survey over an extent of 540 Ha of Pitisal PRF. However, on completion of the DGPS survey, the authenticated land schedule indicated 580.806 Ha of Forest Land. With sustained efforts, a total of 1253.504 Ha of degraded forest land was identified in the state for Compensatory Afforestation (CA) against the forest land proposed for diversion.

Application for forest clearance was submitted to MoEF&CC on 12.01.2024. The Project Screening Committee (PSC) deferred the proposal four times, raising

Essential Details Sought (EDS) observations on some pretext or the other. The primary issue pertained to compliance with Rule 13 of the Van (Sanrakshan Evam Samvardhan) Rules, 2023, notified on 29.11.2023, which mandates submission of a certificate from the competent authority of the state, confirming the non-availability of suitable government non-forest land for CA.

This was finally resolved when an amendment to the aforesaid Rule 13 came into effect on 20.09.2024, providing necessary regulatory relief. Consequently, the proposal was accepted on 07.10.2024, nearly 10 months after the initial submission. After the requisite formalities, the Part - I field inspection was carried out by Nodal, PCCF in November 2024, post which Part – II field inspection was carried out by DFO, Chilika in March 2025.

Prior to Part-III site inspection, a review meeting was conducted by Regional Chief Conservator of Forests (RCCF), Bhubaneswar in presence of DFO, Chilika on 16.04.2025. Subsequently, on 29.04.2025, an observation was raised by the RCCF, Bhubaneswar to reverify the Land Schedule citing that some District Level Committee (DLC) lands were coming under non-Forest areas and PRF. It was determined that approximately 39.079 hectares of DLC land were required to be added to the earlier documented 580.806 hectares of forest land. A revised Land Schedule, incorporating this additional DLC land, was submitted to DFO, Chilika for verification and authentication on 14.05.2025, after which during a coordination meeting held on 31.07.2025 in the office of DFO, Chilika, it was informed that a Coastal Shelter Belt (CSB) Plantation existed within the applied Mining Lease area which was established by the Forest Department during 1979-1997. The DFO requested submission of CSB plantation area to be included within the lease.

Subsequently, on 13.08.2025, DFO, Chilika convened a joint review meeting with IREL to finalize the Land Schedule. The revised Land Schedule, covering a total area of 673.498 hectares comprising PRF 580.806 ha, DLC 39.079 ha, and CSB Plantation 53.613 ha with Mining Lease maps incorporating the CSB plantation, was submitted to the DFO, Chilika, on 25.08.2025.

Due to the constant changes in the forest area, the associated requirement of finalizing the compensatory afforestation scheme is also getting delayed, thereby affecting the entire process of early operationalization of these mines.

In this regard, Secretary, Department of Atomic Energy, had raised concerns with the Chief Secretary, Government of Odisha in a meeting held on 28th April, 2025 regarding delays in execution of the mining lease, particularly due to repeated changes in the Land Schedule. It was emphasized that unless the Land Schedule is frozen, further delays may occur. Also, the matter was communicated to Additional Chief Secretary, Department of Industries, Govt. of Odisha vide letter dated 20th May 2025 for freezing of area of Forest land of the project so as to expedite the project.

Further, Secretary, DAE, vide letter dated 29.08.2025, requested Secretary, MOEF&CC that in consideration of strategic importance of atomic minerals, exemption may be granted for mining projects of atomic minerals from public

consultation to facilitate early operationalization of strategically critical projects. In response, MOEF&CC has granted waiver of Public hearing to all the projects notified in Part B of the first schedule of MMDR Act, exempting from Public consultation.”

13. The Committee appreciate that following the Committee’s recommendation, DAE has taken steps including high-level intervention and securing of a waiver of Public Hearing for atomic mineral projects to get all necessary clearances to establish the Joint Venture (JV) i.e. IREL-IDCOL Limited. The Committee note that the operationalization of the JV continues to be deferred, primarily due to the evolving nature of the land schedule and the associated delays in finalizing compensatory afforestation requirements. Given the status, the Committee regard the response as interim reply. The Committee trust that DAE will maintain close coordination with the Government of Odisha and the Ministry of Environment, Forest, and Climate Change (MoEF&CC) to bring early resolution to the pending issues, particularly the finalization of the land schedule and requisite clearances, so that project activities may commence at the earliest. Given the strategic importance of atomic minerals, the Committee feel that early operationalization of this JV should be treated as a top priority and pursued with required urgency.

IMPORTANCE OF TIMELY COMPLETION OF ONGOING PROJECTS (Recommendation No. 5)

14. The Committee, in their Twelfth Report, recommended the following for timely completion of ongoing projects:

“The Committee note that IREL has about seven major ongoing projects which are at different stages of implementation. Rare Earth and Titanium Theme Park is being set up in Bhopal, Madhya Pradesh for motivating and training entrepreneurs to set up plants using rare earth products at commercial scale. A Joint Venture Company with UKTMP JSC, Kazakhstan is also being established for setting up a titanium slag plant and a Technology Demonstration Plant for the production of 4N pure nano-titania and nanozirconium oxychloride based on in-house technology is also being established. Moreover, mining plants are being developed at Bramhagiri Mineral Sand Deposits in the state of Odisha and Inayam-Midalam Mineral Sand Deposits in the state of Tamil Nadu. Another domestic Joint Venture Company by the name of IREL-TAMIN Limited has also been incorporated, to carry out rare earth mining in the state of Tamil Nadu, in addition to the already incorporated IREL-IDCOL Limited.

While expressing their happiness at IREL's scale and scope of the ongoing projects, which if developed fully, will significantly improve the Country's capability in establishing the entire value chain in rare earth from mining to processing to commercialization in collaboration with private entrepreneurs, the Committee are of the strong view that timely completion of these projects is of utmost importance to make the projects cost-effective and achieve their purposes for which they have been established and start working for the nation sooner in a strategic sector as RE in today's uncertain geopolitical scenario. The Committee, therefore, recommend that all these projects be completed within their stipulated time of completion and would like to be apprised of the status within six months."

15. DAE, in their action taken reply, have stated as follows:

"IREL is mandated to supply strategic materials such as RE bearing mineral, Zircon & RE compounds, derived from the mining and processing of BSM Ore. These materials are critical for the national security and atomic energy. Considering the strategic importance of REEs, Zircon and RE bearing mineral, the projects pertaining to mining of atomic minerals are covered under Part B of First schedule of MMDR Act, 1957 and amendments thereof. Actions have been taken to enable exemption of public consultation for all projects or activities concerning national security and atomic energy for expeditious grant of all statutory clearances including environmental clearance and early operationalization of projects.

In this regard, Secretary DAE vide letter dt. 02.05.2025 requested Secretary, MoEF&CC for amendments to ToR with respect to exemption of public hearing for the mining project of IREL in Kanyakumari district wherein as part of obtaining EC, IREL is facing hindrance in public hearing as District Administration was not announcing the date despite repeated requests from IREL. Also, IREL's application for CRZ clearance has not yet been considered by District Coastal Zone Management Authority (DCZMA). Considering the same, MoEF&CC issued amended ToR F. No. IA-Z-11013/10/2023-IA-I dt. 02.07.2025 granting exemption of public hearing for Environmental & CRZ clearance for the said project.

Further, MOEF&CC has granted waiver of Public hearing to all the projects notified in Part B of the first schedule of MMDR Act, exempting from Public consultation.

This will pave way for early & timely completion of projects resulting in minimizing risk and driving growth for critically important strategic projects.

Status of Projects is furnished below:

| Sl. No. | Project Name | Present status |
|---------|-----------------------------------|--|
| 1 | Rare Earth & Titanium Theme Park: | The Rare Earth & Titanium Theme Park is established at Acharpura, Bhopal with the objective to demonstrate technologies using Rare Earth oxides to produce Rare Earth Metals & Titanium Sponge and develop |

| Sl. No. | Project Name | Present status |
|---------|-------------------------------------|--|
| | | Entrepreneurs and skilled workforce to set up plants on an industrial scale. Process validation is in progress for Cerium, Lanthanum and Neodymium Metals along with recovery of Rare Earths from end-of-life magnets. Titanium Sponge and LED & Lamp Phosphors plant installation is complete and are also under process validation. The entire Project encompassing multiple pilot plants has been completed on 31.03.2025. |
| 2 | JV with UKTMP | Joint Venture Company with M/s Ust-Kamenogorsk Titanium and Magnesium Plant (UKTMP) JSC, Kazakhstan was incorporated on 05.08.2025 for setting up of Titanium Slag plant in India. First meeting of the Board was held on 28.08.2025. Basic engineering is under preparation. |
| 3 | Technology Demonstration Plant | Project has been completed on 31.12.2024. Being an in-house R&D activity at lab scale, the process validation in pilot scale is in progress. |
| 4 | BRAHMAGIRI BSM PROJECT, Odisha | Process of selection and engagement of an MDO for carrying out a Pre-Project activity towards obtaining statutory clearances, mining and upgradation of Mineral sands is in process. Parallel activity of preparing mining plan has been taken up. Obtaining exploration report, field survey reassessment is in progress. |
| 5 | INAYAM- MIDALAM PROJECT, Tamil Nadu | CRZ Clearance: 1. On amendment of Terms of Reference (ToR) exempting Public Hearing by the MoEF&CC, the revised CRZ application along with final EIA report was submitted to the District Environmental Engineer, Tamil Nadu Pollution Control Board (TNPCB) & Convenor District Coastal Zone Management Authority (DCZMA) on 28.07.2025 for forwarding the DCZMA's recommendation to the Tamil Nadu State Coastal Zone Management Authority (TNSCZMA). |

| Sl. No. | Project Name | Present status |
|---------|---------------------------------|---|
| | | <p>2. The DCZMA's meeting for deliberation is yet to be conducted. Further, suitable requests are also made to District Collector/Chairperson of DCZMA for expediting the recommendation.</p> <p>3.The matter has also been taken up at the level of State Administration.</p> |
| 6 | IREL TAMIN PROJECT, Tamil Nadu | <ul style="list-style-type: none"> ▪ IREL TAMIN Limited was incorporated on 28 June 2024 with the objective to mine and set up pre-concentration and mineral separation processing plant of beach sand mineral deposits in Kudiraimozhi (6000 Ha) and Sattankulam Teri heavy mineral deposit (1900 Ha) areas in Thoothukudi districts of Tamil Nadu. ▪ Land demarcation of all the villages of Kudiraimozhi and Sattankulam area is digitized and field survey along with classification of land completed by the team constituted by the State Government. ▪ The Survey Report was submitted to the District Collector, Thoothukudi on 25.01.2025 for onward submission to the Commissioner of Geology and mining, Tamil Nadu. ▪ The above Field Survey Report is forwarded to Tamil Nadu Govt by the DC, Thoothukudi in end February. • Recommendation of the State Govt to the Central Govt (DAE) recommending IREL TAMIN Ltd as prospective lessee and intimation from Central Govt (DAE) on nominating the prospective lessee is awaited. |
| 7 | IREL-IDCOL Limited (IIL) Odisha | <p>Government of Odisha issued Letter of Intent (LOI) in June 2022 towards grant of mining lease in favour of IREL IDCOL Ltd. Term of Reference (ToR) was received from MoEF&CC on 12.04.2025 for grant of EC. Environmental Impact Assessment (EIA)/Environmental Management Plan (EMP) report preparation is completed. Parallel activities for obtaining other statutory</p> |

| Sl. No. | Project Name | Present status |
|---------|--------------|--|
| | | <p>clearances such as CRZ, and Forest Clearance are also in progress.</p> <p>It may be noted that on account of lack of clarity in the land records regarding forest land, the forest area which was initially 527 Ha was changed to 580 Ha. Further, after two stages of field inspection, there was a recommendation to reverify the records.</p> <p>The revised land schedule covering a total area of 673.498 Ha (comprising of PRF 580.806 Ha, DLC 39.079 Ha and CSB plantation of 53.613 Ha) in the mining lease maps was submitted to the DFO, Chilika on 25.08.2025 for approval.</p> <p>On account of frequent changes in the forest area, the project has been inordinately delayed. Further, because of consistent changes, there are difficulties in identifying CA land.</p> <ul style="list-style-type: none"> • Matter has been taken up at different levels of the state government to freeze the forest land with a view to expedite implementation of the project as detailed in page no. 11. |

16. The Committee appreciate the detailed status provided by DAE and are content to note that some of the projects have been completed and commend the proactive steps taken, particularly securing the waiver of Public Hearing and Public Consultation from MoEF&CC, as they directly address the delays noted in obtaining statutory clearances, thereby facilitating the early and timely completion of strategically important projects. The Committee also note that certain aspects of the projects continue to face delays, particularly in relation to the Coastal Regulation Zone (CRZ) and forest clearance processes. While acknowledging the inherent complexities of these regulatory frameworks, the Committee encourage a more structured and proactive approach to project management. In this regard, it would be beneficial to define clear goals and timelines for each phase of the project, supported by a system of quarterly progress reporting to help maintain momentum and ensure accountability throughout the execution process. The Committee are

hopeful that timely completion of all ongoing projects will strengthen the Company in establishing strong position not only domestically but also in international market.

ENVIRONMENTAL IMPACT OF RARE EARTH (RE) MINING (Recommendation No. 7)

17. The Committee, in their Twelfth Report, recommended the following regarding environmental impact of RE mining:

“The Committee learn that Rare earth elements (REEs) are essential for modern technologies, including electronics, renewable energy systems, and defence applications. However, the long-term extraction and utilization of these materials pose significant environmental and health risks that must be addressed through responsible policies and sustainable practices. Moreover, RE mining is highly disruptive to ecosystems and the extraction process generates large amounts of toxic waste, including radioactive materials such as uranium and thorium, which can contaminate soil and water sources. Additionally, open-pit mining and chemical processing lead to deforestation, habitat destruction, and increased greenhouse gas emissions. Over time, these impacts contribute to biodiversity loss and environmental degradation.

The Committee have also learned that communities near rare earth mining sites face serious health concerns. Exposure to heavy metals and radioactive by-products can lead to respiratory diseases, organ damage, and increased cancer risks. Workers in the industry are particularly vulnerable to occupational hazards, including exposure to toxic dust and chemicals.

The Committee also acknowledge that IREL has taken steps to reduce its environmental footprint and to achieve net zero targets by putting in place mandatory Environmental Management System (EMS) and adopting practices such as not using chemicals in the mining and mineral processing activities and using physical separation process to extract the minerals; systematic plantation of native species over the mined-out area; installation of solar power plants to the tune of 1588 kWp for its use and for local consumption; use of LPG as a replacement for coal in boilers and furnace oil in dryers and so on.

While appreciating the fact that IREL has been doing everything in its capacity to reduce its operations' impact and harm on environment, the Committee strongly desire that to mitigate these risks, IREL should never let its guards down and adopt stricter environmental regulations, invest in cleaner extraction technologies, and promote recycling of rare earth elements from electronic waste. The Company should also collaborate with industries to develop sustainable alternatives and improve waste management practices.

The Committee feel that by implementing responsible mining practices and prioritizing environmental and public health safeguards, we can balance the demand for rare earth elements with the need for a sustainable and healthy future.”

18. DAE, in their action taken reply, have stated as follows:

“The environmental impact of RE mining are primarily due to the complex and often toxic nature of the ore body including various radioactive and non-radioactive impurities which require extensive use of water and chemicals/alkalis/acids for extracting the material.

In the Indian context, the resource of REE is occurring in association with radioactivity, making the extraction process long, complex and expensive. During the process some quantity of radioactive residue is generated which is stored in compliance with AERB guidelines. Health Physics Unit (HPU), an independent unit of Environmental Assessment Division (EAD) of Bhabha Atomic Research Centre (BARC), Government of India, monitors the radiological safety aspects in all the facilities of IREL as per AERB guidelines.

Before obtaining mining lease, an Environmental impact assessment (EIA) study is conducted to assess the environmental impact and its mitigation which is submitted to MOEF&CC. Only after clearance of MoEF&CC, the lease is executed for mining. The impact of environmental degradation is thus minimized through adherence to the conditions laid down in the EIA report. Further, regular reports are also submitted to various authorities for monitoring.

IREL has collaborated with Institute of Chemical Technology (ICT), Mumbai, for developing the process for decomposition of trace quantity of amines available in effluents by Advanced Oxidation Process (AOP). IREL is also in collaboration with CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar, for recovery of heavy minerals from mining tails.

IREL continuously upgrades its equipment to adopt new generation technologies with a view to reduce waste and improve recovery.”

19. The Committee appreciate the measures already undertaken by IREL/DAE to minimize environmental degradation, including compliance monitoring by independent agencies and forward-looking research and development (R&D) initiatives. The continuous radiological safety oversight by BARC, coupled with strategic collaborations for effluent decomposition and recovery of minerals from mining tails, demonstrates a strong commitment to cleaner technology and sustainable waste management, thereby fully addressing the concerns raised by the Committee. However, recognizing the strategic importance of Rare Earth Elements

(REEs) and the long-term environmental risks posed by conventional mining practices, the Committee encourage IREL to adopt global best practices in waste management, accelerate R&D in recycling technologies and recommend publishing annual sustainability reports to promote transparency and public confidence. The Committee are hopeful that these actions will help fulfil the Company's environmental sustainability goals or helpful in achieving such goals for the benefit of the larger good of the society.

ADDRESSING ILLEGAL MINING AND SOCIAL RESISTANCE (Recommendation No. 8)

20. The Committee, in their Twelfth Report, recommended the following addressing illegal mining and social resistance:

“The Committee have learned that among the many challenges faced by IREL during its mining operations, lobby of illegal miners during opening of the sector creating hindrances at every step including award of contract and undue protests from NGOs instigating locals misrepresenting factual information about its mines/plants. The Committee recommend that IREL should work with local governments and law enforcement agencies to prevent illegal operations and strengthen security and legal measures to counter unauthorized mining activities. The Company should also implement transparent community engagement programmes with NGOs and local people to counter misinformation and gain local support. The Company should also implement projects that help in local employment generation and support local economy and create awareness regarding the benefits of establishing the mines/plants in their area.

21. DAE, in their action taken reply, have stated as follows:

“As regard to addressing illegal mining of BSM, following actions have been implemented:

- The mining leases granted to Private BSM companies have been terminated by the government.
- AMCR 2016/19 has come into effect as per which only government-controlled entities can carry out mining of atomic minerals. As on date, IREL & KMML (State PSU of Kerala) are only engaged in mining and mineral processing activities.
- IREL extends its support to law and enforcement agencies (Revenue, police and Geology & Mining Department) from time to time by providing information on the hurdles faced in obtaining mining lease and hindrances in plant operations.

Towards transparent community engagement (for instance in MK unit in Tamil Nadu), IREL interacts with organisations/associations such as Kumari Maha Sabha (KMS), Institution of Engineers (India)(IEI), Ushas-Nagercoil, Team of Horticulture

Department (led by The Dy. Director), Government of Tamil Nadu etc. to apprise regarding the importance of IREL's environment friendly sustainable operations, role in reducing the background radiation by 8-10 fold from the natural background radiation etc. IREL also organizes visit of various associations to plant facilities for better understanding of IREL operation in transparent manner such as;

1. Institution of Engineers (India)(IEI), Kanyakumari Chapter
2. Ushas, Nagercoil
3. Team of Horticulture Department (led by The Deputy Director), Government of Tamil Nadu, etc.

Further, IREL carries out the following public outreach programme to counter misinformation and gain support from locals:

1. Publishing the Fact sheet on "Clarification of IREL Operation" in the daily newspaper.
2. Awareness and interaction session in the local village committees, Schools, colleges, Forums.
3. Awareness program in Colleges through Health Physics Division, BARC.

As far as implementing projects to help local employment is concerned, IREL carries out beach washings collection by engaging local fisherman societies which helps in sustaining their livelihood and improve standard of living. Further, job oriented skill development training has been imparted to local unemployed youth through training institutes like CIPET & PMKK.

Similar activities are also carried out in OSCOM, Odisha and Chavara, Kerala."

22. The Committee commend IREL's initiatives in engaging with communities, NGOs and educational institutions to counter misinformation and generate awareness about the benefits of its operations, alongwith the multi-faceted public outreach strategy that includes providing local employment and education. While appreciating these steps, the Committee desire that the process of local participation be institutionalized through structured community partnership framework(s) based on norms and technique that should be followed in strict manner. The Committee, therefore, desire that DAE and IREL create a dedicated grievance redressal and community consultation mechanism at each project site, so as to build trust and reduce social resistance to mining projects of national importance. The Committee are hopeful that implementation of these guidelines in letter and spirit will bring expected results for the Company and society in general.

CHAPTER II

OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Overview (Recommendation Sl. No. 1)

The Committee note that IREL (India) Limited is a key contributor to India's strategic mineral supply chain. It was founded in 1950 as Indian Rare Earths Limited, IREL (India) Limited (Company's current name) is a wholly owned Central Public Sector Undertaking (CPSU) of the Government of India, under the administrative control of the Department of Atomic Energy (DAE). It is 100% owned by Government of India. It plays a vital role in India's atomic energy sector, particularly in the mining and processing of rare earth minerals and heavy minerals. The Company operates mining and mineral processing plants across Odisha, Tamil Nadu and Kerala. Its activities align with national priorities, including self-reliance in critical minerals, defence applications and nuclear energy. It is a 'Mini Ratna' Category – I CPSU with "Excellent" MoU rating over the last six consecutive years.

The Committee were further informed that IREL's mandate is to produce atomic minerals and rare earths, contributing to India's strategic nuclear program and various commercial sectors. Its vision is to be a significant contributor to the global clean energy mission by providing high-quality materials in a responsible manner.

It has also been noted that as per the geological information available, the reported rare earth (RE) resources in India is about 6.9 million tons, which accounts for around 6% of total global RE reserves. India has fifth largest reserves of rare earth elements (REEs). Apart from low concentration of RE oxide of India, mineability is further constrained due to CRZ (coastal regulation zone) regulations, mangroves, forest land and uncontrolled inhabitation.

The Committee further note that India is among three to four countries globally having the capability to produce refined REEs, the other Countries being China and Malaysia.

China has established a near-monopoly in the global rare earth market, controlling approximately 60-70% of global production and 85-90% of RE processing capacity.

The Committee were informed that due to their critical applications in electronics, defense, and renewable energy, REEs have gained strategic importance globally. IREL caters to nuclear energy, defense and space sectors by supplying critical rare earths to these industries. Over 90% of its customers in India are in MSE (Micro and Small Enterprises) category. Total revenue from exports of some of the non-strategic heavy minerals such as Ilmenite, Zircon and Rutile consistently ranges from 40 to 50% of the sales. Revenue from operations has grown at CAGR of over 26%. The Committee have also learned that IREL faces some challenges such as dominance of China in rare earth markets, controlling global supply and pricing; stringent environmental and land acquisition regulations; long gestation periods for mining approvals; lobbying and illegal mining activities impacting operations; and low-grade Indian rare earth deposits compared to global standards.

IREL (India) Limited plays a pivotal role in India's nuclear and strategic material supply chain. In view of China's near-monopoly in the global supply and pricing of REs and the imperative need for India's self-sufficiency in RE production and supply to meet its domestic requirement and to assess India's preparedness to face any global geo-political challenges in terms of RE value chain, the Committee have put forth their Observations/Recommendations in the subsequent paras after having heard the views of IREL and Department of Atomic Energy (DAE). The Committee hope that the Company would make earnest efforts for implementation of the Observations/Recommendations in this Report to augment their overall performance.

Reply of the Government

No comments.

Exploring ways to establish RE Ecosystem in India (Recommendation Sl. No. 3)

The Committee note that creating an ecosystem of REs is very long drawn process and it consists of ten to twelve segments and unless all the segments are developed, any country cannot benefit from the ecosystem in order to move ahead. The Committee also learned that the monopoly that China has established is such that it has established the entire segments and for that to happen, it gave a red-carpet welcome to international investments with no conditions. So, international investors worked in China for 5 years and during this period the Chinese developed the required skilled manpower and consequently they were able to establish their own RE industry of the entire value chain. This kind of ecosystem has been developed there and due to this, the Chinese monopoly got established in the global RE market.

The Committee are happy to note that India has also gained the requisite expertise over the years in the mining and processing of REs, which in India's case is radioactive too. IREL also has the capability to extract REs out of the far inferior and very less concentrated Indian RE ores, India's RE content being 0.056 to 0.058% whereas that of China is 6%. It is also learned that over 90% of IREL customers in India are in MSE (Micro and Small Enterprises) category. The processed minerals and chemicals produced by IREL are supplied to about 2000 industries (mostly MSEs) operating in the downstream sector. They make ancillary products for bigger companies, resulting in import substitution and promote the Make in India initiative of the Government of India.

The Committee feel that IREL and DAE may consider exploring ways for bringing skilled manpower and required expertise to further/fully develop the entire RE ecosystem to cater to the entire rare earth value chain in order to be able to counter to a certain extent China's monopoly in the global RE market. The Committee would like to be apprised of the steps taken in this regard.

Reply of Government

The Rare Earth (RE) bearing mineral in the Indian reserves has a very lean content of RE to the tune of 0.056-0.058% and is associated with radioactivity. Hence, a long drawn eco-system is required to move from reserves to finished product comprising of multiple

processes/plants. This includes obtaining statutory clearances, mining, mineral beneficiation, upgradation of RE bearing mineral, RE extraction, refining to oxides, metal extraction, etc. Specific to RE magnet, one need to convert metal to alloy and then to magnet. Thereafter, application of finished product as motor finds use in energy saving appliances.

While India has existing facilities from mining to separation, extraction and refining to oxide form and has also developed capability of metal extraction, but further industrial scale facilities (intermediate) to alloy, magnet etc. are non-existent. To address the issue of lack of industries in the intermediate value chain, IREL has established a Rare Earth & Titanium Theme Park at Bhopal. At this facility, rare earth metals have been produced for the first time in the country. Mini plants for the production of Cerium, Lanthanum and Neodymium Metals along with recovery of magnetic Rare Earths from end-of-life magnets have been established with the technology established by BARC on Lab scale. This ecosystem so created is established with a view to upscale the scientific principles proven at laboratory to pilot scale and demonstrate the same to aspiring Industries to set up commercial operations. This is an attempt to pave way for furthering the RE value chain from the upstream sector to mid-stream sector by allowing private industries to familiarize themselves with the process and gain hands-on-experience. Further, this serves as a training ground for the industries to develop the necessary skillsets.

Once the industry scale-plant is established, the requisite skill set for magnet making, a crucial component of the REE value chain, can be developed.

In addition, the following steps have been taken by the Government of India:

3. National Critical Mineral Mission (NCMM) has been launched by Government of India in January 2025 for promoting exploration, mining, beneficiation, processing, recycling, etc. of critical minerals which also include REEs. It also promotes acquisition of assets abroad which may help in assisting in stockpiling of resources of magnetic and heavy REEs (which are not available in Indian resources).
4. Government of India is in the process of framing a policy to establish downstream Industry using REE. This would pave the way for establishment of Industries in the Intermediate RE value chain for the production of magnets which are used in national

security, atomic energy, green sector, etc. Once the magnet making industries are established, skills associated with the process can be passed on to the workforce.

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Comments of the Committee
(Please see para 10 of Chapter I of the Report)

Importance of early and timely completion of ongoing Projects
Recommendation (Sl. No. 5)

The Committee note that IREL has about seven major ongoing projects which are at different stages of implementation. Rare Earth and Titanium Theme Park is being set up in Bhopal, Madhya Pradesh for motivating and training entrepreneurs to set up plants using rare earth products at commercial scale. A Joint Venture Company with UKTMP JSC, Kazakhstan is also being established for setting up a titanium slag plant and a Technology Demonstration Plant for the production of 4N pure nano-titania and nanozirconium oxychloride based on in-house technology is also being established. Moreover, mining plants are being developed at Bramhagiri Mineral Sand Deposits in the state of Odisha and Inayam-Midalam Mineral Sand Deposits in the state of Tamil Nadu. Another domestic Joint Venture Company by the name of IREL-TAMIN Limited has also been incorporated, to carry out rare earth mining in the state of Tamil Nadu, in addition to the already incorporated IREL-IDCOL Limited.

While expressing their happiness at IREL's scale and scope of the ongoing projects, which if developed fully, will significantly improve the Country's capability in establishing the entire value chain in rare earth from mining to processing to commercialization in collaboration with private entrepreneurs, the Committee are of the strong view that timely completion of these projects is of utmost importance to make the projects cost-effective and achieve their purposes for which they have been established and start working for the nation sooner in a strategic sector as RE in today's uncertain geopolitical scenario. The

Committee, therefore, recommend that all these projects be completed within their stipulated time of completion and would like to be apprised of the status within six months.

Reply of the Government

IREL is mandated to supply strategic materials such as RE bearing mineral, Zircon & RE compounds, derived from the mining and processing of BSM Ore. These materials are critical for the national security and atomic energy. Considering the strategic importance of REEs, Zircon and RE bearing mineral, the projects pertaining to mining of atomic minerals are covered under Part B of First schedule of MMDR Act, 1957 and amendments thereof. Actions has been taken to enable exemption of public consultation for all projects or activities concerning national security and atomic energy for expeditious grant of all statutory clearances including environmental clearance and early operationalization of projects.

In this regard, Secretary DAE vide letter dt. 02.05.2025 requested Secretary, MoEF&CC for amendments to ToR with respect to exemption of public hearing for the mining project of IREL in Kanyakumari district wherein as part of obtaining EC, IREL is facing hindrance in public hearing as District Administration was not announcing the date despite repeated requests from IREL. Also, IREL's application for CRZ clearance has not yet been considered by District Coastal Zone Management Authority (DCZMA). Considering the same, MoEF&CC issued amended ToR F. No. IA-Z-11013/10/2023-IA-I dt. 02.07.2025 granting exemption of public hearing for Environmental & CRZ clearance for the said project.

Further, MOEF&CC has granted waiver of Public hearing to all the projects notified in Part B of the first schedule of MMDR Act, exempting from Public consultation.

This will pave way for early & timely completion of projects resulting in minimizing risk and driving growth for critically important strategic projects.

Status of Projects is furnished below:

| Sl. No. | Project Name | Present status |
|---------|-----------------------------------|--|
| 1 | Rare Earth & Titanium Theme Park: | The Rare Earth & Titanium Theme Park is established at Acharpura, Bhopal with the objective to demonstrate technologies using Rare Earth oxides to produce Rare Earth Metals & Titanium Sponge and develop Entrepreneurs and skilled workforce to set up plants on an industrial scale. Process validation is in progress for Cerium, Lanthanum and Neodymium Metals along with recovery of Rare Earths from end-of-life magnets. Titanium Sponge and LED & Lamp Phosphors plant installation is complete and are also under process validation. The entire Project encompassing multiple pilot plants has been completed on 31.03.2025. |
| 2 | JV with UKTMP | Joint Venture Company with M/s Ust-Kamenogorsk Titanium and Magnesium Plant (UKTMP) JSC, Kazakhstan was incorporated on 05.08.2025 for setting up of Titanium Slag plant in India. First meeting of the Board was held on 28.08.2025. Basic engineering is under preparation. |
| 3 | Technology Demonstration Plant | Project has been completed on 31.12.2024. Being an in-house R&D activity at lab scale, the process validation in pilot scale is in progress. |
| 4 | BRAHMAGIRI BSM PROJECT, Odisha | Process of selection and engagement of an MDO for carrying out a Pre-Project activity towards obtaining statutory clearances, mining and upgradation of Mineral sands is in process. Parallel activity of preparing mining plan has been taken up. Obtaining exploration report, field survey reassessment is in progress. |

| Sl. No. | Project Name | Present status |
|---------|-------------------------------------|--|
| 5 | INAYAM- MIDALAM PROJECT, Tamil Nadu | <p>CRZ Clearance:</p> <ol style="list-style-type: none"> 1. On amendment of Terms of Reference (ToR) exempting Public Hearing by the MoEF&CC, the revised CRZ application along with final EIA report was submitted to the District Environmental Engineer, Tamil Nadu Pollution Control Board (TNPCB) & Convenor District Coastal Zone Management Authority (DCZMA) on 28.07.2025 for forwarding the DCZMA's recommendation to the Tamil Nadu State Coastal Zone Management Authority (TNSCZMA). 2. The DCZMA's meeting for deliberation is yet to be conducted. Further, suitable requests are also made to District Collector/Chairperson of DCZMA for expediting the recommendation. 3. The matter has also been taken up at the level of State Administration. |
| 6 | IREL TAMIN PROJECT, Tamil Nadu | <ul style="list-style-type: none"> ▪ IREL TAMIN Limited was incorporated on 28 June 2024 with the objective to mine and set up pre-concentration and mineral separation processing plant of beach sand mineral deposits in Kudiraimozhi (6000 Ha) and Sattankulam Teri heavy mineral deposit (1900 Ha) areas in Thoothukudi districts of Tamil Nadu. ▪ Land demarcation of all the villages of Kudiraimozhi and Sattankulam area is digitized and field survey along with classification of land completed by the team constituted by the State Government. |

| Sl. No. | Project Name | Present status |
|---------|---------------------------------|---|
| | | <ul style="list-style-type: none"> ▪ The Survey Report was submitted to the District Collector, Thoothukudi on 25.01.2025 for onward submission to the Commissioner of Geology and mining, Tamil Nadu. ▪ The above Field Survey Report is forwarded to Tamil Nadu Govt by the DC, Thoothukudi in end February. • Recommendation of the State Govt to the Central Govt (DAE) recommending IREL TAMIN Ltd as prospective lessee and intimation from Central Govt (DAE) on nominating the prospective lessee is awaited. |
| 7 | IREL-IDCOL Limited (IIL) Odisha | <p>Government of Odisha issued Letter of Intent (LOI) in June 2022 towards grant of mining lease in favour of IREL IDCOL Ltd. Term of Reference (ToR) was received from MoEF&CC on 12.04.2025 for grant of EC. Environmental Impact Assessment (EIA)/ Environmental Management Plan (EMP) report preparation is completed. Parallel activities for obtaining other statutory clearances such as CRZ, and Forest Clearance are also in progress.</p> <p>It may be noted that on account of lack of clarity in the land records regarding forest land, the forest area which was initially 527 Ha was changed to 580 Ha. Further, after two stages of field inspection, there was a recommendation to reverify the records.</p> <p>The revised land schedule covering a total area of 673.498 Ha (comprising of PRF 580.806 Ha, DLC 39.079 Ha and CSB plantation of 53.613 Ha) in the</p> |

| Sl. No. | Project Name | Present status |
|---------|--------------|--|
| | | <p>mining lease maps was submitted to the DFO, Chilika on 25.08.2025 for approval.</p> <p>On account of frequent changes in the forest area, the project has been inordinately delayed. Further, because of consistent changes, there are difficulties in identifying CA land.</p> <p>Matter has been taken up at different levels of the state government to freeze the forest land with a view to expedite implementation of the project as detailed in page no. 11.</p> |

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Comments of the Committee
(Please see para 16 of Chapter I of the Report)

Exploring ways for Collaboration with other Foreign Companies
(Recommendation Sl. No. 6)

The Committee have learned that the main competitors of IREL for rare earth minerals and heavy minerals in the international market are mainly based in China, Australia, South Africa, Senegal, Mozambique, etc. and China has monopolized the International RE market because of the sheer scale and size of its well-developed RE industry ecosystem and globally diversified source of RE ores. The Committee strongly feel that in today's interconnected global economy, collaboration with like-minded foreign companies may give an edge for long-term success and growth. Partnering with International Companies provides businesses with access to new markets, advanced technologies, diverse expertise, and expanded networks that drive innovation and competitiveness. The Committee, therefore, desire that IREL should explore the avenues to collaborate with foreign companies of Australia, South Africa, Senegal, Mozambique, etc. through mutual understanding for technology transfer, sharing of skilled manpower, knowhow and

expertise to grow together in the international market on mutual benefit or win-win condition.

Reply of the Government

- Indian resources are lean in heavy REE which are not available in economically extractable form. IREL is into engagements with countries having the HREE deposits such as Oman, Mongolia etc.
- MoUs have been entered with Coal India Ltd, Oil India Ltd & NLC India Ltd for co-operation in the field of rare earths. These companies have been requested to assess potential magnetic and HREE resources abroad for acquisition or investment with assured offtake into India.

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Environmental impact of Rare Earth (RE) mining (Recommendation SI. No. 7)

The Committee learn that Rare earth elements (REEs) are essential for modern technologies, including electronics, renewable energy systems, and defence applications. However, the long-term extraction and utilization of these materials pose significant environmental and health risks that must be addressed through responsible policies and sustainable practices. Moreover, RE mining is highly disruptive to ecosystems and the extraction process generates large amounts of toxic waste, including radioactive materials such as uranium and thorium, which can contaminate soil and water sources. Additionally, open-pit mining and chemical processing lead to deforestation, habitat destruction, and increased greenhouse gas emissions. Over time, these impacts contribute to biodiversity loss and environmental degradation.

The Committee have also learned that communities near rare earth mining sites face serious health concerns. Exposure to heavy metals and radioactive by-products can lead to respiratory diseases, organ damage, and increased cancer risks. Workers in the industry are particularly vulnerable to occupational hazards, including exposure to toxic dust and chemicals.

The Committee also acknowledge that IREL has taken steps to reduce its environmental footprint and to achieve net zero targets by putting in place mandatory Environmental Management System (EMS) and adopting practices such as not using chemicals in the mining and mineral processing activities and using physical separation process to extract the minerals; systematic plantation of native species over the mined-out area; installation of solar power plants to the tune of 1588 kWp for its use and for local consumption; use of LPG as a replacement for coal in boilers and furnace oil in dryers and so on.

While appreciating the fact that IREL has been doing everything in its capacity to reduce its operations' impact and harm on environment and, the Committee strongly desire that to mitigate these risks, IREL should never let its guards down and adopt stricter environmental regulations, invest in cleaner extraction technologies, and promote recycling of rare earth elements from electronic waste. The Company should also collaborate with industries to develop sustainable alternatives and improve waste management practices.

The Committee feel that by implementing responsible mining practices and prioritizing environmental and public health safeguards, we can balance the demand for rare earth elements with the need for a sustainable and healthy future.

Reply of the Government

The environmental impact of RE mining are primarily due to the complex and often toxic nature of the ore body including various radioactive and non-radioactive impurities which require extensive use of water and chemicals/alkalis/acids for extracting the material.

In the Indian context, the resource of REE is occurring in association with radioactivity, making the extraction process long, complex and expensive. During the process some quantity of radioactive residue is generated which is stored in compliance with AERB guidelines. Health Physics Unit (HPU), an independent unit of Environmental Assessment

Division (EAD) of Bhabha Atomic Research Centre (BARC), Government of India, monitors the radiological safety aspects in all the facilities of IREL as per AERB guidelines.

Before obtaining mining lease, an Environmental impact assessment (EIA) study is conducted to assess the environmental impact and its mitigation which is submitted to MOEF&CC. Only after clearance of MoEF&CC, the lease is executed for mining. The impact of environmental degradation is thus minimized through adherence to the conditions laid down in the EIA report. Further, regular reports are also submitted to various authorities for monitoring.

IREL has collaborated with Institute of Chemical Technology (ICT), Mumbai, for developing the process for decomposition of trace quantity of amines available in effluents by Advanced Oxidation Process (AOP). IREL is also in collaboration with CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar, for recovery of heavy minerals from mining tails.

IREL continuously upgrades its equipment to adopt new generation technologies with a view to reduce waste and improve recovery.

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**Comments of the Committee
(Please see para 19 of Chapter I of the Report)**

**Addressing Illegal Mining and Social Resistance
(Recommendation Sl. No. 8)**

The Committee have learned that among the many challenges faced by IREL during its mining operations, lobby of illegal miners during opening of the sector creating hindrances at every step including award of contract and undue protests from NGOs instigating locals misrepresenting factual information about its mines/plants. The Committee recommend that IREL should work with local governments and law enforcement agencies to prevent illegal operations and strengthen security and legal

measures to counter unauthorized mining activities. The Company should also implement transparent community engagement programmes with NGOs and local people to counter misinformation and gain local support. The Company should also implement projects that help in local employment generation and support local economy and create awareness regarding the benefits of establishing the mines/plants in their area.

Reply of the Government

As regard to addressing illegal mining of BSM, following actions have been implemented:

- The mining leases granted to Private BSM companies have been terminated by the government.
- AMCR 2016/19 has come into effect as per which only government-controlled entities can carry out mining of atomic minerals. As on date, IREL & KMML (State PSU of Kerala) are only engaged in mining and mineral processing activities.
- IREL extends its support to law and enforcement agencies (Revenue, police and Geology & Mining Department) from time to time by providing information on the hurdles faced in obtaining mining lease and hindrances in plant operations.

Towards transparent community engagement (for instance in MK unit in Tamil Nadu), IREL interacts with organisations/associations such as Kumari Maha Sabha (KMS), Institution of Engineers (India)(IEI), Ushas-Nagercoil, Team of Horticulture Department (led by The Dy. Director), Government of Tamil Nadu etc. to apprise regarding the importance of IREL's environment friendly sustainable operations, role in reducing the background radiation by 8-10 fold from the natural background radiation etc. IREL also organizes visit of various associations to plant facilities for better understanding of IREL operation in transparent manner such as;

4. Institution of Engineers (India)(IEI), Kanyakumari Chapter
5. Ushas, Nagercoil
6. Team of Horticulture Department (led by The Deputy Director), Government of Tamil Nadu, etc.

Further, IREL carries out the following public outreach programme to counter misinformation and gain support from locals:

4. Publishing the Fact sheet on “Clarification of IREL Operation” in the daily newspaper.
5. Awareness and interaction session in the local village committees, Schools, colleges, Forums.
6. Awareness program in Colleges through Health Physics Division, BARC.

As far as implementing projects to help local employment is concerned, IREL carries out beach washings collection by engaging local fisherman societies which helps in sustaining their livelihood and improve standard of living. Further, job oriented skill development training has been imparted to local unemployed youth through training institutes like CIPET & PMKK.

Similar activities are also carried out in OSCOM, Odisha and Chavara, Kerala.

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Comments of the Committee
(Please see para 12 of Chapter I of the Report)

CHAPTER III

OBSERVATIONS/RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES

- Nil -

CHAPTER IV

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

- Nil -

CHAPTER V

OBSERVATIONS/RECOMMENDATIONS TO WHICH THE GOVERNMENT HAS FURNISHED INTERIM REPLIES AND REPLIES ARE STILL AWAITED

Vacant Positions of Regular CMD and Four Independent Directors (Recommendation Sl. No. 2)

The Committee note that there is no regular CMD since the superannuation of the officer hold the post of CMD on 30 November 2024 and since then the Director (Finance) has been holding the additional charge of CMD. Moreover, all the four (04) posts of Non-official Independent Directors are vacant and consequently, the Board strength has been reduced to half of the total sanctioned strength of 12. Though the Committee learned that IREL has already taken up the matter with the appropriate authority and their response is awaited, the Committee feel that these vacancies not only hamper the functioning of the Company, but also violate the principle of Corporate Governance. Therefore, the Committee urge upon the Government of India through DAE, being the administrative Ministry, to fill up the vacant posts of four Independent Directors and appoint a regular CMD without any further delay. Also, if the Company is discharging their functions effectively with less number of Independent Directors, they may think of reducing the sanctioned posts of Directors in the organization in future.

Reply of the Government

As per the DPE Guidelines on Corporate Governance dated 14.05.2010, unlisted CPSEs are required to have at least one-third of the Board Members as Independent Directors. The Department of Atomic Energy, vide its letter dated May 4, 2018, stipulated that the Board of IREL should comprise four Independent Directors. Accordingly, the company has consistently endeavoured to ensure adequate number of Independent Directors on its Board.

Department has requested DPE through its various correspondences in the last one year for appointment of Non-Official Directors (NoDs) and is continuing to follow up with them. As efforts are under taken to fill up the vacant NoD position in Board in consultation with DPE, no need is felt to reduce the sanctioned posts of Directors in IREL.

With regard to the appointment of regular CMD, PESB has already conducted the interview and recommended the candidate, which is under process for ACC approval.

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Comments of the Committee
(Please see para 7 of Chapter I of the Report)

Delay in starting operation of IREL-IDCOL Limited
(Recommendation SI. No. 4)

The Committee note that IREL has formed a Joint Venture (JV) Company called IREL-IDCOL Limited in collaboration with Industrial Development Corporation of Odisha Limited (IDCOL). The JV Company was incorporated on 18.01.2018 with IREL holding minimum 51% and IDCOL holding upto 49% of the share capital. A CEO and a Project Co-Ordinator have been appointed for the JV Company. A mining Officer of IREL is assisting the Project Co-ordinator in matters related to the JV Company and rest of the manpower support is occasional and are being drawn from IREL.

The Committee further note that IREL-IDCOL is under the process of obtaining mining lease for which the process of statutory clearances such as Environmental Clearance (EC), Forest Clearance (FC), Coastal Regulation Zone (CRZ), etc. have been taken up. Because of not getting timely clearances of the above statutory clearances, starting of operation of the Company is getting delayed. The Committee recommend that the issues pertaining to granting of clearances of the above statutory clearances may be taken up at the level of the Department so that the process may be expedited and IREL-IDCOL may start operation without any further delay.

Reply of the Government

Formation of JV Company and Issuance of Letter of Intent (LOI):

The IREL-IDCOL Joint Venture company was incorporated on 18.01.2018. The Letter of Intent (LoI) from the Government of Odisha, covering an area of 852.459 Ha, was issued in June 2022. This resulted in significant delay in initiating project-related activities. The sequence of activities towards receiving LoI are as under:

- IREL applied for grant of Mining lease for an extent of 974.369 Ha. in May 2018.
- AMD confirmed the availability of Geological Report (GR) for 875 Ha under Rule 4 (5)b of AMCR 2016 and the GR was submitted to State Govt. in February 2019.
- The field survey was started in February 2020.
- In October 2020, Government of Odisha after the field survey requested DAE to nominate IREL IDCOL Ltd as prospective lessee. The same was received in January 2021 from DAE.

ToR and Environmental Clearance Process:

- Form-1 and the Pre-feasibility Report were submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 30.01.2024. The proposal was considered in the Expert Appraisal Committee (EAC) meeting held on 06.03.2024 and the Terms of Reference (ToR) were issued on 12.04.2024. Compliance with ToR conditions is completed. On account of the delay in obtaining the Forest Clearance, the submission of Environmental Impact Assessment (EIA) report is on hold.
- No sooner the CRZ and Forest recommendations are received, the proposal would be submitted for grant of Environmental Clearance.

Forest Land Diversion Requirement

Government of Odisha issued Lol for 852.459 Ha of land to JV company. During the application process, it was informed by the Divisional Forest Officer (DFO), Chilka about the presence of 527.83 Ha under Pitisa Proposed Reserve Forest (PRF) in the lease area. While giving clearance for the Differential Global Positioning System (DGPS) survey, the DFO, Chilka requested to carry out DGPS survey over an extent of 540 Ha of Pitisa PRF. However, on completion of the DGPS survey, the authenticated land schedule indicated 580.806 Ha of Forest Land. With sustained efforts, a total of 1253.504 Ha of degraded forest land was identified in the state for Compensatory Afforestation (CA) against the forest land proposed for diversion.

Application for forest clearance was submitted to MoEF&CC on 12.01.2024. The Project Screening Committee (PSC) deferred the proposal four times, raising Essential Details Sought (EDS) observations on some pretext or the other. The primary issue pertained to compliance with Rule 13 of the Van (Sanrakshan Evam Samvardhan) Rules, 2023, notified on 29.11.2023, which mandates submission of a certificate from the

competent authority of the state, confirming the non-availability of suitable government non-forest land for CA.

This was finally resolved when an amendment to the aforesaid Rule 13 came into effect on 20.09.2024, providing necessary regulatory relief. Consequently, the proposal was accepted on 07.10.2024, nearly 10 months after the initial submission. After the requisite formalities, the Part - I field inspection was carried out by Nodal, PCCF in November 2024, post which Part – II field inspection was carried out by DFO, Chilika in March 2025.

Prior to Part-III site inspection, a review meeting was conducted by Regional Chief Conservator of Forests (RCCF), Bhubaneswar in presence of DFO, Chilika on 16.04.2025. Subsequently, on 29.04.2025, an observation was raised by the RCCF, Bhubaneswar to reverify the Land Schedule citing that some District Level Committee (DLC) land were coming under non-Forest areas and PRF. It was determined that approximately 39.079 hectares of DLC land were required to be added to the earlier documented 580.806 hectares of forest land. A revised Land Schedule, incorporating this additional DLC land, was submitted to DFO, Chilika for verification and authentication on 14.05.2025, after which during a coordination meeting held on 31.07.2025 in the office of DFO, Chilika, it was informed that a Coastal Shelter Belt (CSB) Plantation existed within the applied Mining Lease area which was established by the Forest Department during 1979-1997. The DFO requested submission of CSB plantation area to be included within the lease.

Subsequently, on 13.08.2025, DFO, Chilika convened a joint review meeting with IREL to finalize the Land Schedule. The revised Land Schedule, covering a total area of 673.498 hectares comprising PRF 580.806 ha, DLC 39.079 ha, and CSB Plantation 53.613 ha with Mining Lease maps incorporating the CSB plantation, was submitted to the DFO, Chilika, on 25.08.2025.

Due to the constant changes in the forest area, the associated requirement of finalizing the compensatory afforestation scheme is also getting delayed, thereby affecting the entire process of early operationalization of these mines.

In this regard, Secretary, Department of Atomic Energy, had raised concerns with the Chief Secretary, Government of Odisha in a meeting held on 28th April, 2025 regarding delays in execution of the mining lease, particularly due to repeated changes in the Land Schedule. It was emphasized that unless the Land Schedule is frozen, further delays may occur. Also, the matter was communicated to Additional Chief Secretary, Department of Industries, Govt. of Odisha vide letter dated 20th May 2025 for freezing of area of Forest land of the project so as to expedite the project.

Further, Secretary, DAE, vide letter dated 29.08.2025, requested Secretary, MoEF&CC that in consideration of strategic importance of atomic minerals, exemption may be granted for mining projects of atomic minerals from public consultation to facilitate early operationalization of strategically critical projects. In response, MoEF&CC has granted waiver of Public hearing to all the projects notified in Part B of the first schedule of MMDR Act, exempting from Public consultation.

[Department of Atomic Energy (DAE)]
(O.M. No. 1/1(10)/2024-PSU/Vol.II/12797 Dated 26.09.2025)

Comments of the Committee
(Please see para 13 of Chapter I of the Report)

New Delhi;
08 December, 2025
17 Agrahayana, 1947(S)

BAIJAYANT PANDA
Chairperson
Committee on Public Undertakings

COMMITTEE ON PUBLIC UNDERTAKINGS
(2025-26)

MINUTES OF THE FIFTEENTH SITTING OF THE COMMITTEE

The Committee sat on Friday, the 5th December, 2025 from 1000 hrs. to 1045 hrs. in Committee Room No. '2', Ground Floor, Extension to Parliament House Annexe, New Delhi.

PRESENT

Shri Baijayant Panda - **Chairperson**

MEMBERS

LOK SABHA

2. Shri Tariq Anwar
3. Shri Chandra Prakash Joshi
4. Shri Kaushalendra Kumar
5. Shri Shankar Lalwani
6. Shri B.Y. Raghavendra
7. Shri Mukesh Rajput
8. Shri Sukhjinder Singh Randhawa
9. Shri Prabhakar Reddy Vemireddy
10. Shri Lalji Verma

RAJYA SABHA

11. Dr. John Brittas
12. Shri Neeraj Dangi
13. Shri Milind Murli Deora
14. Dr. Bhagwat Karad
15. Shri Surendra Singh Nagar
16. Shri Debashish Samantaray
17. Shri Arun Singh

SECRETARIAT

1. Shri Anjani Kumar - Joint Secretary
2. Smt. Mriganka Achal - Director
3. Shri Tenzin Gyaltzen - Deputy Secretary

2. The Hon'ble Chairperson briefly apprised the Members on the Eleven draft Reports. The Committee then considered and adopted the following draft reports, without any changes/modifications: -

- i. Sagarmala Finance Corporation Limited (SFCL) (Comprehensive Examination);

- ii. Rural Electrification Corporation Limited (REC Limited) (Comprehensive Examination);
- iii. Nuclear Power Corporation of India Limited (NPCIL) (Comprehensive Examination);
- iv. Review of Performance of Petroleum & Natural Gas Sector CPSUs (Horizontal Examination);
- v. “Para No. 2.4 of C&AG Report No. 14 of 2021 regarding ‘Loss due to flaring of High-pressure gas’ relating to Oil & Natural Gas Corporation (ONGC) Limited. (Audit Based Examination);
- vi. Action Taken by the Government on the Observations/ Recommendations contained in the First Report (18th Lok Sabha) on “Procurement of hardware/software item to the tune of Rs. 890.34 Crores through strategic alliance” relating to National Informatics Centre Services Inc. (NICS) [Based on Audit Para No. 6.1 of C&AG Report No. 03 of 2021];
- vii. Action Taken by the Government on the Observations/ Recommendations contained in the Third Report (18th Lok Sabha) on “Undue enrichment through recovery of turnover tax from consumer” relating to Indian Oil Corporation Limited (IOCL) [Based on Audit Para No. 2.1 of C&AG Report No. 14 of 2021];
- viii. Action Taken by the Government on the Observations/ Recommendations contained in the Ninth Report (18th Lok Sabha) on “Industrial Finance Corporation of India Limited (IFCI Ltd)”;
- ix. Action Taken by the Government on the Observations/ Recommendations contained in the Tenth Report (18th Lok Sabha) on “Design and Development (D&D) in Hindustan Aeronautics Limited (HAL)” [Based on Chapter-II of C&AG Report No. 18 of 2023];
- x. Action Taken by the Government on the Observations/ Recommendations contained in the Eleventh Report (18th Lok Sabha) on “Reviewing timely submission of Action Taken Notes (ATNs) on C&AG Paras/Reports (Commercial) by the Ministries/Departments”; and
- xi. Action Taken by the Government on the Observations/ Recommendations contained in the twelfth Report (18th Lok Sabha) on “IREL (India) Limited”.

3. The Committee authorized the Chairperson to finalize the draft Reports on the basis of factual verification as suggested by the concerned CPSUs/Ministry/Department/C&AG and presentation of the same during the current session of Parliament.

The Committee, then, adjourned.

APPENDIX II

(Vide para 4 of the Introduction)

ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE TWELFTH REPORT OF COMMITTEE ON PUBLIC UNDERTAKINGS (18TH LOK SABHA) ON IREL (INDIA) LIMITED

| | | |
|------|--|--------|
| I. | Total number of recommendations | 08 |
| II. | Observations/Recommendations which have been accepted by the Government: | 06 |
| | Sl. Nos. 1, 3, 5, 6, 7 & 8 | 75.00% |
| | Percentage of total: | |
| III. | Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies: | 00 |
| | NIL | 00.00% |
| | Percentage of total: | |
| IV. | Observations/Recommendations in respect of which replies of Government had not been accepted by the Committee and which require reiteration: | |
| | NIL | 00 |
| | Percentage of total: | 00.00% |
| V. | Observations/Recommendations in respect of which the Government has furnished interim replies and final replies are still awaited: | |
| | Sl. Nos. 2 & 4 | 02 |
| | Percentage of total: | 25.00 |