

Eighth Review Meeting
Joint Convention on the Safety of Spent Fuel Management
and on the Safety of Radioactive Waste Management
17 – 28 March 2025

Country Group **8**
Rapporteur's Written Report

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Country Group 8

BOTSWANA, BRAZIL, CZECHIA, GREECE, ICELAND, MAURITANIA, MEXICO, PERU,
RWANDA, UKRAINE, UZBEKISTAN

OFFICERS OF THE COUNTRY GROUP

	Name	CP
Chair:	Mr Mikulas Turner	Slovakia
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Rapporteur:	Ms Emma Anderson	Canada
Co-ordinator:	Mr Sven Keßen	Germany

GREECE



Greece – General Discussions

- **Countries of CG8 present:** Botswana, Brazil, Czechia, Greece, Iceland, Mexico, Peru, Rwanda, Ukraine, Uzbekistan (10 out of 11)
- **Other CPs present:** China, Germany, Ireland, Russian Federation, Slovakia, Rep. of Korea, Türkiye, United Kingdom, United States of America



Greece – General Discussions

Updates since 7RM:

- Since 7RM, progress has been made in implementing a new organizational structure for the Greek Atomic Energy Commission (EEAE) via Presidential Decree in 2022 to ensure independence between EEAE's regulatory role and its provision of technical services.
- In 2023, the national policy and strategy were revised and consolidated into a single legislative act, which expands and supplements existing national legislative, regulatory and organizational framework to ensure responsible and safe management of SF&RW.
- Key change in RW inventory due to return of spent LEU fuel from Greece's research reactor (GRR-1) to the USA in 2019, with remaining fresh LEU exported in Canada in 2023. Fresh natural uranium from a decommissioned sub-critical assembly exported to USA in 2024.



Greece – General Discussions

- The EEAE is undertaking a social media campaign to inform stakeholders on RW management and hosts meetings open to the public with scientific experts. Legislation requires transparency and provision of information to the public and the EEAE are working towards a public communication and involvement strategy for the planned disposal site.
- For the Recovery and Resilience Facility (RRF) program, repackaging of radioactive waste is funded via the RRF fund, and procurement and operations are undertaken by contractors.
- According to National Programme, the disposal facility should be owned by the National Centre for Scientific Research “Demokritos” (NCSR “D”), though the legislation allows for private ownership. Construction of the facility is to start in 2032, and it’s expected that the lifespan of repackaging containers will be sufficient to last until disposal capacity is available.
- Medical waste is disposed of in the municipal waste system after sufficient decay, including I-131. The EEAE’s environmental monitoring program takes samples from the municipal waste treatment plants to monitor activity. Licenses for nuclear medicine require the applicants to provide the quantities of radioisotopes to be used and a clear waste management strategy.
- Current cost estimates for the National Program, up to 2034, is around 11 million EUR and, based on the ARTEMIS mission recommendations, these estimates will be updated to include further costs, including for post-closure.
- No points of disagreement were raised.



Greece – Follow-up planned measures to improve safety from the 7th Review Meeting

- To make maximum use of the upcoming ARTEMIS mission
 - Greece considers both the preparation of the ARTEMIS mission, as well as the mission itself, a success. The ARTEMIS findings consist of 13 recommendations and 2 suggestions.
 - Implementation of these recommendations is ongoing and part of the planned measures to improve safety for the 8RM.



Greece – Follow-up on challenges from the 7th Review Meeting

- To make the RRF program a success:
 - (Closed): Significant progress has been made on the RRF program's two work cycles: 1. Export of radioactive sources for recycling: ~ 80% of the total activity of disused sources have been exported abroad for reuse or recycling and 2. the characterization and re-packaging of legacy RW from NCSR "D" started in September 2024 and is expected to be completed by mid-2025.
- Decision whether disposal facility should be at new site or extension of the only storage facility for radioactive waste and disused radioactive sources (NRWIS)
 - (Partially Closed): A preliminary siting study has assessed various factors for a potential near-surface disposal facility with engineered barriers (vaults) and possibly a borehole.
 - Preliminary results suggest that NCSR "D" may meet safety criteria, however, conclusive radiological assessments will require further hydrogeological and geochemical analyses.



Greece – Follow-up on suggestions from the 7th Review Meeting

- No suggestions to Greece were made during RM7



Greece – Follow-up on overarching issues from the 7th Review Meeting

- Competence and staffing linked to timetable for SF and RW management programmes.
 - EEAE has no staff dedicated exclusively to RW management. Interim RW storage comprises of 2 scientist, with occasional support from NCSR “D” staff. GRR-1 employs 1 scientist, 8 technicians, 3 engineers and 2 radiation protection technicians with average age of 59 yrs.
 - The EEAE has established a scholarship program for postgraduate studies abroad in nuclear technology and radiological or nuclear safety.
- Inclusive public engagement on RW management and on SF management programmes.
 - Regulatory provisions in place to ensure meaningful public participation in site-selection decision making. The EEAE also maintains communication mechanisms on its website and a public consultation process.
 - A public engagement strategy is currently being developed, including analysis of public needs and concerns. Social media campaigns providing accurate information about radioactive waste have been developed and are underway.
- Ageing management of packages and facilities for RW and SF, considering extended storage periods.
 - Greece only has RW. Repackaging and recharacterization of legacy RW to be concluded by mid-2025. Ageing management has not been discussed further.
- Long term management of DSRS, including sustainable options for regional as well as multinational solutions.
 - Borehole disposal of DSRS is under consideration but no decision has been made. Main policy is to return DSRS, when possible.



Greece – Overview Matrix

Type of Liability	Long Term Management Policy	Funding of Liabilities	Current Practice / Facilities	Planned Facilities
Spent Fuel	N/A			
Nuclear Fuel Cycle Waste	N/A			
Application Wastes	<ul style="list-style-type: none"> - Disposal 	<ul style="list-style-type: none"> - Licensee - Government 	<ul style="list-style-type: none"> - On site storage, decay & release for short lived waste. - Longer lived waste stored until final management solution 	<ul style="list-style-type: none"> - Near surface disposal facility with engineered barriers (vault) is being investigated
Decommissioning	<ul style="list-style-type: none"> - Decommissioning waste stream 	<ul style="list-style-type: none"> - Licensee - Government 	<ul style="list-style-type: none"> - Decommissioning plan is required in the national regulatory framework 	<ul style="list-style-type: none"> - Research Reactor (GRR-1)
Disused Sealed Sources	<ul style="list-style-type: none"> - Return to the manufacturer - Recycling - Disposal 	<ul style="list-style-type: none"> - Licensee - Government 	<ul style="list-style-type: none"> - Return to the manufacturer - Exported to be recycled - Interim storage 	<ul style="list-style-type: none"> - None

Note, NORM has not been declared as radioactive waste.

Greece – Planned Measures to Improve Safety

- Improvement of the EEAE’s communication strategy to include all stakeholders in decision making.
- Update of the national policy and strategy to address ARTEMIS findings. Other planned improvement measures are in the context of the 2023 ARTEMIS mission, which includes 13 recommendations and 2 suggestions, which broadly focus on:
 - Further development of the national programme, including for all waste streams for decommissioning of all facilities and NORM
 - Elaboration of the national inventory, including RW arising from the decommissioning of all facilities
 - Cost estimation and financial aspects, including for post-closure of facilities
 - Capacity to implement all the actions within the national programme



Greece – Challenges from the 8th Review Meeting

- To finalize the procedures for siting of the disposal facility, this includes the final decision of whether to site the facility at the NCSR "D" site (continuation of partially-closed challenge from RM7).
- Establishment of a waste management organization in accordance with the activities foreseen in the National Programme.



Greece – Suggestions from the 8th Review Meeting

- No suggestions were made.



Greece – Areas of Good Performance

- First time publication of a multiannual budget for RW management in the Government Gazette.
- EEAE's decision to award scholarships for postgraduate studies abroad in relevant fields to address human resource needs.
- Recycling/reuse of all remaining fresh LEU and all remaining fresh natural Uranium.
- Massive re-packaging and recharacterization of the legacy waste inventory (enhances NRWIS interim storage safety related to ageing and greatly facilitates final disposal).



Greece – Good Practices

- No good practices were identified.



Greece – Conclusions

- Greece has made progress since the 7RM in revising its national policy and strategy and implementing a new organizational structure for the EEAE to ensure independence.
- An ARTEMIS mission was concluded in 2023, and work is planned to update the national policy and strategy based on the recommendations.
- Progress is ongoing to implement and site a disposal facility and further site assessments are underway at NCSR "D". The EEAE is also developing a public communication and involvement strategy.

