

Seventh Review Meeting
Joint Convention on the Safety of Spent Fuel Management
and on the Safety of Radioactive Waste Management

27 June – 8 July 2022

Country Group 1
Rapporteur's Written Report

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Greece



Greece – General Discussions

- Countries of CG1 being present

Belarus, Czech Republic, Greece, Jordan, Peru, Switzerland, USA
(Not present: Benin, Iceland, Kyrgyzstan, Paraguay)

- Other Contracting Parties being present

Canada, China, France, Germany, Nigeria, UAE, UK

Greece – General information

- Sources for generation of spent fuel and radioactive waste
 - 1 research reactor, GRR-1, in extended shutdown at the National Center for Scientific Research (NCSR), “Demokritos”, Athens.
 - Disused and orphan sealed sources and other materials
- Management of spent fuel and radioactive waste
 - One central storage facility for radioactive waste (NRWIS). No disposal facility yet
 - All spent (LEU) fuel shipped back to US in 2019. Fresh fuel envisaged to be exported to Canada

Greece – Summary of discussions

- Repatriation and export of fuel
 - Spent fuel already returned to USA – HEU (in 2005) funded by agreement with USDOE, LEU (2019) funded by Greece. Good cooperation with USA in both cases, completed to schedule
 - Export of fresh fuel planned for 2021, delayed due to airline disruption during pandemic – hope to complete by end of 2022
- Public engagement related to potential disposal facility
 - Plan near surface disposal at existing storage and reactor site or at another site
 - Continuous information on website and consultations on specific cases
 - Some interest in public consultation on general legislation for radioactive waste management
- Milestones for disposal facility
 - In national program – relevant milestones up to end of 2023, but do not include building facility – further milestones after ARTEMIS

Greece – Summary of discussions

- Liquid radioactive waste from research reactor
 - Very small volumes associated with fuel ponds
- Approach to preserving competence of staff in regulatory body and other stakeholders to deal with radioactive waste management in non-nuclear country
 - Education & training plans for regulatory staff
 - Encourage participation in major EU R&D projects
 - Financing bursaries for students in relevant studies
- Decommissioning of research reactor
 - Substantial progress in characterizing wastes that will arise
 - Licence for extended shutdown – requires detailed decommissioning plan
 - No complete decommissioning plan from operator yet

Greece – Points of agreement and disagreement

- There were no points of disagreement

Greece – Actions on Challenges from 6th Review Meeting

- Second version of National Program entered into force
 - Specific milestones and timeframes regarding recycling of sealed radioactive sources and radioactive material; and operation of NRWIS
 - Updated inventory and classification of radioactive waste
 - Technical solutions for the disposal facility
 - Measures for the post-closure of the disposal facility
 - Estimation of costs
 - Financial arrangements and sources
- Actions in National Program are divided into two specific objectives
 - Objective A: specific actions on recycling of sealed radioactive sources and radioactive material
 - Objective B: specific actions on operation of the NRWIS and a future disposal facility

Greece – Updates since submission

- Proposal submitted for financing characterization of historical waste and export of DSRS (included in plans of the Recovery & Resilience Facility RRF)
- Update of inventory to include most recent data on historical waste and waste from decommissioning of research reactor
- Actions started for the export of remaining nuclear material (from NCSR Demokritos and NTUA)
- Improvement of safety of NRWIS including management system and physical protection. Licence has been renewed.

Greece – Impact of pandemic

- Authorization process not affected
- Inspection process modified and conducted either remotely or with limited presence of inspectors and personnel from licensee.
- Communication with licensee performed mainly remotely.
- Pandemic raised questions of trust between public and authorities in general
 - but provided opportunities to gain trust in some specific cases
- Disruption in airlines delayed transport of fresh fuel to Canada.

Greece – Overview Matrix

Type of Liability	Long term management policy	Funding of Liabilities	Current practice/ Facilities	Planned facilities
Spent Fuel	N/A	N/A	N/A	N/A
Nuclear Fuel Cycle Waste	N/A	N/A	N/A	N/A
Non-power waste	On site storage, decay and release for short live waste. Longer lived waste are stored until final management solution.	Licensee, Government	On site storage, decay and release for short lived waste. Longer lived waste are stored until final management solution	RW Interim Storage and Management Facility Options for disposal facility selected, sitting is being investigated
Decommissioning Liabilities	Decommissioning waste stream included in the national program waste streams.	Licensee, Government	Decommissioning plan is required in the national regulatory framework	No plans have been submitted yet
Disused Sealed Sources	Return to the manufacturer. Recycling.	Licensee, Government	Return to the manufacturer. Stored under regulatory control. Orphan sources are stored mostly in NRWIS	RW Interim Storage and Management Facility Options for disposal facility selected, sitting is being investigated
Mining & Milling waste	N/A	N/A	N/A	N/A

Greece – Challenges

- Definition (INFCIRC/603/Rev.7, Annex 2):

A Challenge is a difficult issue for the Contracting Party. It may be a demanding undertaking (beyond day-to-day activities); or a weakness that needs to be remediated.

- To make a success of the RRF program
- Decision whether disposal facility should be at new site or extension of NRWIS

Greece – Planned Measures to Improve Safety

- To make maximum use of the upcoming ARTEMIS mission

Greece – Suggestions

- *Definition (INFCIRC/603/Rev.7, Annex 2):*

A Suggestion is an area for improvement. It is an action needed to improve the implementation of the obligations of the Convention.

None.

Greece – Areas of Good Performance

- *Definition (Workshop for Incoming and Outgoing Officers of the JC, July 2017):
An Area of Good Performance is a new or enhanced practice, policy or program for a Contracting Party that is commendable and is being implemented. An Area of Good Performance¹ is a significant accomplishment for that Contracting Party, although it may have been undertaken by other Contracting Parties.
¹ An Area of Good Performance could be demonstrated, for example, through achievement of milestones or improvements from the previous review.*
- Removal of all spent fuel from Greece to USA

Greece – Good Practices

- *Definition (INFCIRC/603/Rev.7, Annex 2):*

A Good Practice is a new or revised practice, policy or program that makes a significant contribution to the safety of radioactive waste and spent fuel management. A Good Practice is one that has been tried and proven by at least one Contracting Party but has not been widely implemented by other Contracting Parties; and is applicable to other Contracting Parties with similar programs

- None.

Greece – Conclusions

- Progress since the previous Review Meeting, including:
 - Completion of repatriation of LEU spent fuel to the USA. Export of fresh fuel to Canada upcoming.
 - Entry into force of second National Program, and progress on specific actions
 - Including progress on investigation of sites for disposal facility