Rapporteur's Working Document
Greece

Country Group: 4

Date: March 26, 2014

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Summary

- Regulatory body of Greece is Greek Atomic Energy Commission (GAEC)
- Greece has no nuclear installation and no intention to build any in the foreseeable future
- Greece has a research reactor (GRR-1), sub critical assembly in an university, and ionizing radiation installations (medical, research, industrial, education, agriculture, etc.)
- Refurbishment program of the GRR-1 has been suspended and the reactor is in extended shutdown
- Greece has radiological emergency preparedness regulations, plans and organization scheme and a fairly extensive monitoring network covering the national territory

Highlighted Regulatory Changes

- Greece hosted IRRS mission in 2012
- Changes in Laws and Regulations
  - Transposition of the EC Directive 2009/71/Euratom, establishing a Community framework for the nuclear safety of nuclear installations
  - Regulations with regard to licensing and safety requirements for research reactors
  - Transposition of the EC Directive 2011/70/Euratom establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste

Safety Achievement

- GAEC conducted emergency exercise to test authority's capacity
- Development and implementation of an integrated management system of the organization according to the terms of ISO 9001 and requirement IAEA Safety Standards GS-R-3
- Greece-IAEA agreement to support GAEC as Regional Training Centre in Europe for Radiation, Transport and Waste Safety was signed and ratified by the Greek Parliament

Follow-up From Previous Reviews

Challenges (1)

Maintain appropriate level of nuclear safety expertise in a non NPP country.

- On-the-job training at US NRC.
- GAEC requested from GRR-1 information on measures to maintain adequate human resources and knowledge in the event that refurbishment and restart proceed
- In response to Fukushima, GAEC improved staff redundancy and knowledge/skills with respect to emergency preparedness
- Participation in the review process of the EU Stress Tests and in on-site visits

Follow-up From Previous Reviews

Challenges (2)

Update the licensing framework of the GRR-1

- The new licensing framework has been established, at the occasion of transposition EC Directive into Greek national legislation.
- GRR-1 is considered to be in extended shutdown state. The operator has applied for the respective license.

Follow-up From Previous Reviews

Challenges (3)

Provide effective (dejure) independence of the Regulatory Body

- Greece hosted an IAEA IRRS mission in 2012
  - IAEA IRRS mission concluded that GAEC is effectively independent and functionally separate.
- GAEC has proposed additional provisions to help maintain the independence of the GAEC Board members for incorporation in the revision of the regulatory framework.

Planned Measures

- Implementation of the recommendations of the IRRS Mission
- Implementation of the proposed Action Plan
- Preparation of the follow up mission
- Further development of GAEC's Integrated Management System towards full compliance with IAEA GS-R-3
- GAEC is to consider requesting an International Physical Protection Advisory Service (IPPAS) mission for GRR-1

Challenges

- Further promotion of Safety Culture
- Full compliance of GAEC Integrated Management System with IAEA GS-R-3 Requirements
- National Large Scale Project for population collective dose estimation
- Maintain appropriate level of nuclear safety expertise in a non NPP country.

Good Practices

- Good efforts for maintaining a high level of transparency
  - National Report and Q&A on IAEA website
  - Published IRRS Report

Suggestions

- Reflect the findings from the IRRS mission in the next CNS report, along with follow-up actions.
- Include dose data and dose limits in the next CNS report.

Fukushima Daiichi Highlights

- Upgrade of the computer tool for atmospheric dispersion
- New staff trained
- New decision support tool (RODOS) installed
- Participation in the review process of the EU Stress Tests and in on-site visits
- On the job training of GAEC staff at US NRC (two month visit)