INTEGRATED REGULATORY REVIEW SERVICE (IRRS)
MISSION TO GREECE

Athens, Greece
20 to 30 May 2012

DEPARTMENT OF NUCLEAR SAFETY AND SECURITY
INTEGRATED REGULATORY REVIEW SERVICE (IRRS)
REPORT TO
THE GOVERNMENT OF GREECE

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Mission date: 20 - 30 May 2012
Regulatory body: Greek Atomic Energy Commission (GAEC)
Location: Athens, Greece
Organized by: International Atomic Energy Agency (IAEA)

IRRS REVIEW TEAM

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IAEA-2012
EXECUTIVE SUMMARY

At the request of the Government of the Hellenic Republic, an international team of senior safety experts met representatives of the Greek Atomic Energy Commission (GAEC) from 20 to 30 May 2012 to conduct an Integrated Regulatory Review Service (IRRS) mission. The mission took place at the headquarters of GAEC in Agia Paraskevi, Attica.

The purpose of this IRRS mission was to review the effectiveness of the Greek framework for safety within the competence of GAEC. The review compared the Greek regulatory framework for safety against IAEA safety standards as the international benchmark for safety. The mission was also used as an opportunity to exchange information and experience between the IRRS review team members and the GAEC counterparts in the areas covered by the IRRS.

The IRRS Review team consisted of nine senior regulatory experts from nine IAEA Member States, four IAEA staff members and an IAEA administrative assistant. The IRRS Review team carried out the review in the following areas: responsibilities and functions of the government; the global nuclear safety regime; responsibilities and functions of the regulatory body; the management system of the regulatory body; the activities of the regulatory body including the authorization, review and assessment, inspection and enforcement processes; development and content of regulations and guides; emergency preparedness and response; transport, control of medical exposure, occupational radiation protection, control of radioactive discharges and materials for clearance, environmental monitoring associated with authorized practices for public radiation protection purposes and the control of chronic exposures and remediation.

The IRRS mission also included the following regulatory policy issues for discussion: independence of the regulatory body, long term policy on waste management, clinical quality audits. The IRRS review addressed the facilities and activities regulated by GAEC which involve radiation sources in addition to the waste management facilities. The research reactor GRR-1 in the National Centre for Scientific Research (NCSR) “Demokritos” was out of the scope of this IRRS review, but will be included in the follow-up mission.

The mission included observations of regulatory activities and a series of interviews and discussions with GAEC staff and other organizations to help assess the effectiveness of the regulatory system. These activities included observations of inspections and/or surveillance visits to the Public Hospital “Attikon” (interventional radiology, nuclear medicine), NCSR waste facility, IFET industrial irradiator, BIOKOSMOS cyclotron facility, and Hospital “Hygeia” (radiotherapy).

The IRRS team members observed the working practices during inspections carried out by GAEC, including discussions with the licensee personnel and management. In addition the IRRS team observed an emergency exercise which was conducted with representatives from multiple organizations.

GAEC provided the IRRS review team with advanced reference material and documentation including the results of its self-assessment in all areas within the scope of the mission. Throughout the mission, the IRRS Review team was extended full cooperation in its review of regulatory, technical and policy issues by all parties. The staff of GAEC was very open and candid in their discussions and provided the fullest practicable assistance.

The IRRS review team identified a number of good practices and made recommendations and suggestions where improvements will enhance the effectiveness of the regulatory framework and functions in line with the IAEA Safety Standards. The IRRS Team recognized that the
action plan prepared by GAEC as a result of the self-assessment was broadly correlated with the IRRS findings.

The main observations of the IRRS Review team were the following:

- The IRRS Team has concluded that while the Greek Government’s commitment to safety is being demonstrated through its actions, the development of a comprehensive national policy and strategy expressed in a consolidated statement would provide a valuable framework and guidance for future actions in terms of safety.
- GAEC has effective independence. The Greek government has ensured that GAEC is effectively independent in its safety related decision making and that it has functional separation from entities having responsibility or interests that could unduly influence its decision making.

Among the strengths/good practices identified by the IRRS review team were the following:

- Greece actively participates in the global safety regime including all relevant safety conventions;
- There is a real time monitoring of radioactivity levels at border posts in support of Customs and the detection of illicit trafficking and at various locations in the country by means of a network of telemetric stations, which contributes significantly to identifying the initial phase of a potential radiation emergency, due to events within or outside the country;
- GAEC exhibits a strong commitment to education and training in radiation protection.

The IRRS Review team identified issues warranting attention or in need of improvement and believes that consideration of these would enhance the overall performance of the regulatory system.

- The Radiation Protection Regulations require updating to bring them in line with the current IAEA Safety Requirements. Consideration should be given to the adoption of a more flexible hierarchy of safety regulations.
- The IRRS Team observed that the legal framework is dated, lacks the flexibility of a risk-based regulatory framework which provides for a graded approach to safety and has gaps particularly with respect to waste and decommissioning.
- The development and implementation of an integrated management system requires senior management commitment to allocate sufficient resources with the appropriate authority, and to actively involve all staff.
- The prime responsibility for safety, the responsibilities of employers and workers with respect to occupational exposure, and responsibilities with respect to emergency preparedness and response need to be explicitly assigned in the legal and regulatory framework for safety.

The IRRS Review team findings are summarized in Appendix V.

A press conference was conducted at the end of the mission, and press releases by IAEA and GAEC were issued.