



Arrangements for education and training within the framework of the 2013/59/EURATOM Directive transposition in Greek legislation

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Greek Atomic Energy Commission www.eeae.gr

Overview

- Introduction
 - ✓ EEAE – Current Regulatory framework
- Methodology for the transposition
- RPE – RPO
- Challenges
 - ✓ Stakeholders involvement
 - ✓ Sustainability
- Summary

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Regulatory authority

- competent authority for the control, regulation and supervision in the fields of nuclear energy, nuclear technology, radiological, nuclear safety and radiation protection.
- Public entity (Legal person of public law)



Our identity

Mission

The protection of the public, the workers and the environment from ionizing radiation and artificially produced non-ionizing radiation.

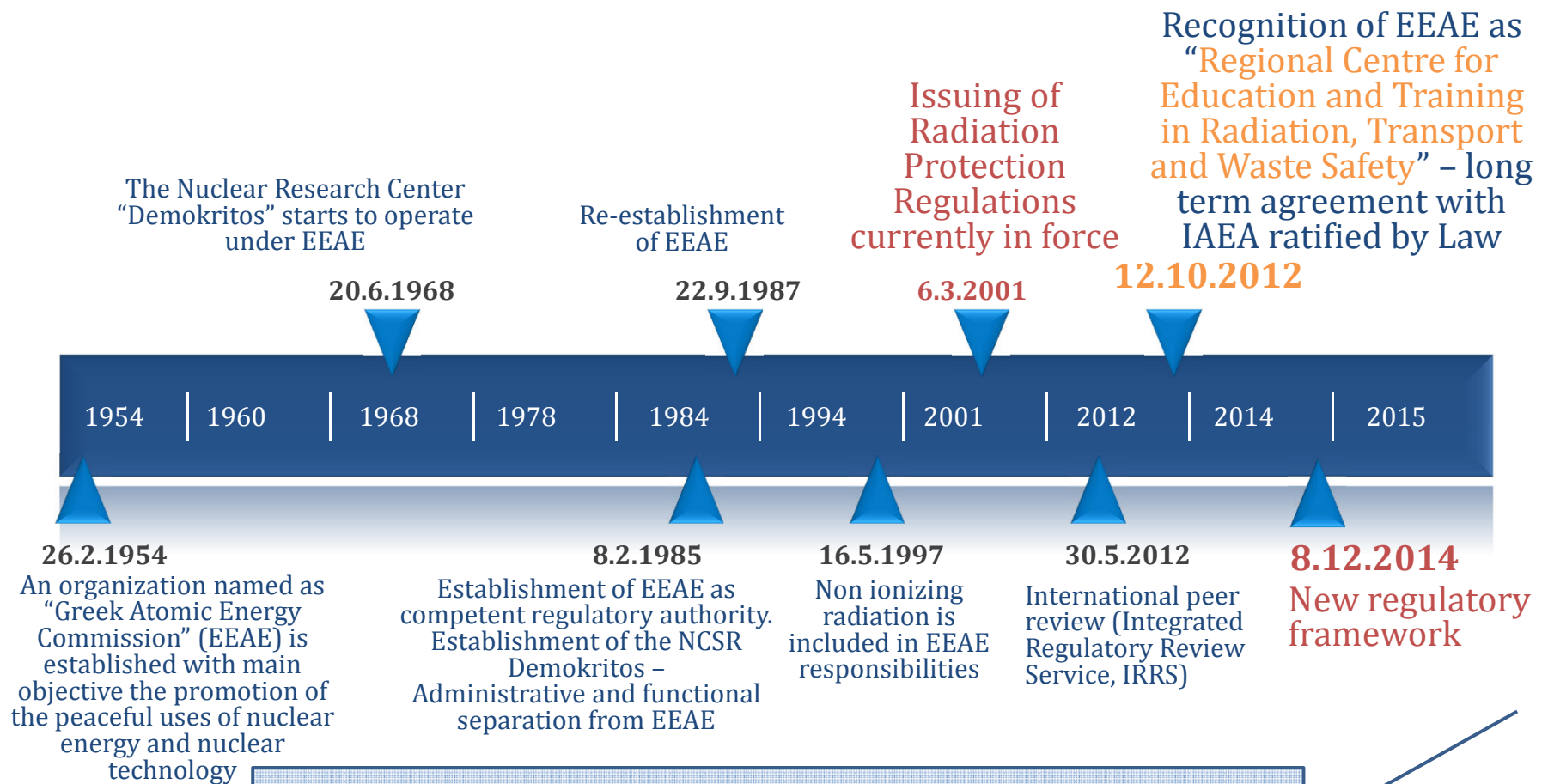
Vision

To be a **modern regulatory authority**, in the areas of radiation protection, radiological and nuclear safety, enjoying trustfulness and recognition nationally and internationally, and a **model public service** fulfilling its tasks responsibly.

Values

Integrity and Impartiality, Competence, Quality and Credibility, Transparency, Social Responsibility, Scientific Excellence, Openness

Timeline



Gives the mandate to the EEAE for the transposition of the new EC directive to the national legislation

Regulatory framework

EEAE establishment and organizational laws:

make provision for the Division of Research, Development and **Education Among its responsibilities:**

- Training and continuing training of occupationally exposed workers
- Training of scientists & experts on radiation protection and nuclear safety
- Recognition of curricula




The Greek Radiation Protection Regulations:

- All persons involved in radiological procedures **must have knowledge on RP** (theoretical and practical training)
- The **competence** of the personnel working in radiation facilities and activities **must be checked** before issuing (or renewing) the operation license of a facility
- Provisions for QE/RPE, RPO– **recognition requirements**
- EEAE issues **certificates of competency** on RP for occupationally exposed personnel (exams, CVs, personal interviews)



Regulatory framework – Council Directive

17.1.2014  Official Journal of the European Union L 13/1

II

(Non-legislative acts)

COUNCIL DIRECTIVE 2013/59/EURATOM

of 5 December 2013

laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 31 and 32 thereof,

Having regard to the proposal from the European Commission, drawn up after having obtained the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States, and after having consulted the European Economic and Social Committee,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the European Economic and Social Committee,

Whereas:

- (1) Point (b) of Article 2 of the Euratom Treaty provides for the establishment of uniform safety standards to protect the health of workers and of the general public, Article 30 of the Euratom Treaty defines "basic standards" for the protection of the health of workers and of the general public against the dangers arising from ionising radiation.
- (2) In order to perform its task, the Community laid down basic standards for the first time in 1959 by means of Directives of 2 February 1959 laying down the basic standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation⁽¹⁾. The Directives have been revised several times, most recently by Council Directive 96/29/Euratom⁽²⁾ which repealed the earlier Directives.

⁽¹⁾ OJ L 11, 20.2.1959, p. 221.

⁽²⁾ Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (OJ L 159, 29.6.1996, p. 1).

- (3) Directive 96/29/Euratom establishes the basic safety standards. The provisions of that Directive apply to normal and emergency situations and have been supplemented by more specific legislation.

- (4) Council Directive 97/43/Euratom⁽³⁾, Council Directive 89/618/Euratom⁽⁴⁾, Council Directive 90/641/Euratom⁽⁵⁾ and Council Directive 2003/122/Euratom⁽⁶⁾ cover different specific aspects complementary to Directive 96/29/Euratom.

- (5) As recognised by the Court of Justice of the European Union in its case-law, the tasks imposed on the Community by point (b) of Article 2 of the Euratom Treaty to lay down uniform safety standards to protect the health of workers and the general public does not preclude, unless explicitly stated in the standards, a Member State from providing for more stringent measures of protection. As this Directive provides for minimum rules, Member States should be free to adopt or maintain more stringent measures in the subject-matter covered by this Directive, without prejudice to the free movement of goods and services in the internal market as defined by the case-law of the Court of Justice.

- (6) The Group of Experts appointed by the Scientific and Technical Committee has advised that the basic safety

⁽³⁾ Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure, and repealing Directive 84/466/Euratom (OJ L 180, 9.7.1997, p. 22).

⁽⁴⁾ Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency (OJ L 337, 7.12.1989, p. 31).

⁽⁵⁾ Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas (OJ L 349, 13.12.1990, p. 21).

⁽⁶⁾ Council Directive 2003/122/Euratom of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources (OJ L 346, 31.12.2003, p. 57).

Gives particular emphasis on education and training aspects introducing :

- ✓ the **Radiation Protection Expert (RPE)** former "Qualified Expert"
- ✓ the **Radiation Protection Officer (RPO)**

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive **by 6 February 2018**.

Council Directive - Definitions

Radiation Protection Expert (RPE):

means an **individual** or, if provided for in the national legislation, **a group of individuals** having the **knowledge**, **training** and **experience** needed to give radiation protection **advice** in order to ensure the effective protection of individuals, and whose competence in this respect **is recognized by the competent authority**

Radiation Protection Officer (RPO):

means an individual who **is technically competent** in radiation protection matters relevant for a given type of practice **to supervise** or **perform the implementation** of the radiation protection arrangements

- ✓ recognition of RPOs, if such recognition is provided for in national legislation
- ✓ MS shall decide in which practices the designation of a RPO is necessary to supervise or to perform radiation protection tasks

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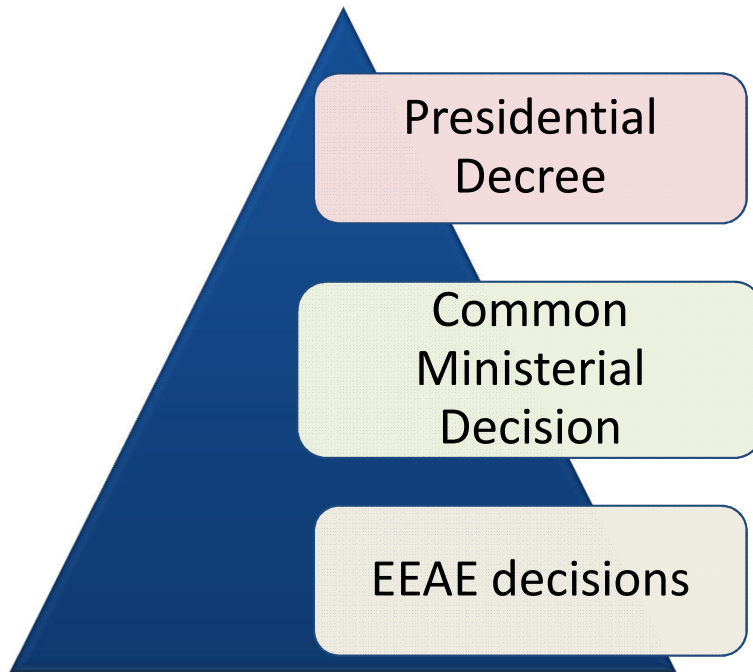
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Council Directive – Methodology for the transposition



Transpose the Directive articles to the national legislation

- Mandate from the:
 - ✓ Presidential Decree
 - ✓ The EEAE establishment law
- Legislation Implementation

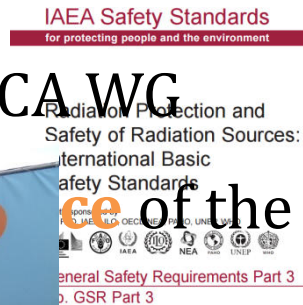
Details on the implementation

National Radiation Protection Regulations

Methodology for the transposition

Basis for the transposition

- IAEA Basic Safety Standards
- The **common approaches of the EU MS – HERCA WG**
- The EEAE's existing Rad
- The recommendations of the **2012 IAEA IRRS Mission**
 - ✓ The recommendations of the **2015 EduTA Mission**

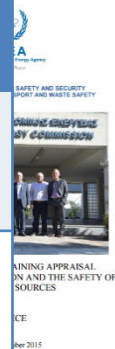


Recommendations

Definition of the **role and functions of QE and RPO** consistently for all the practices and facilities should be introduced

Clear **criteria (including training)** for recognition of QE and designation of RPO, particularly for the non-medical applications should be introduced

Requirements for a **re-training programme** for all workers should be introduced



Methodology for the transposition

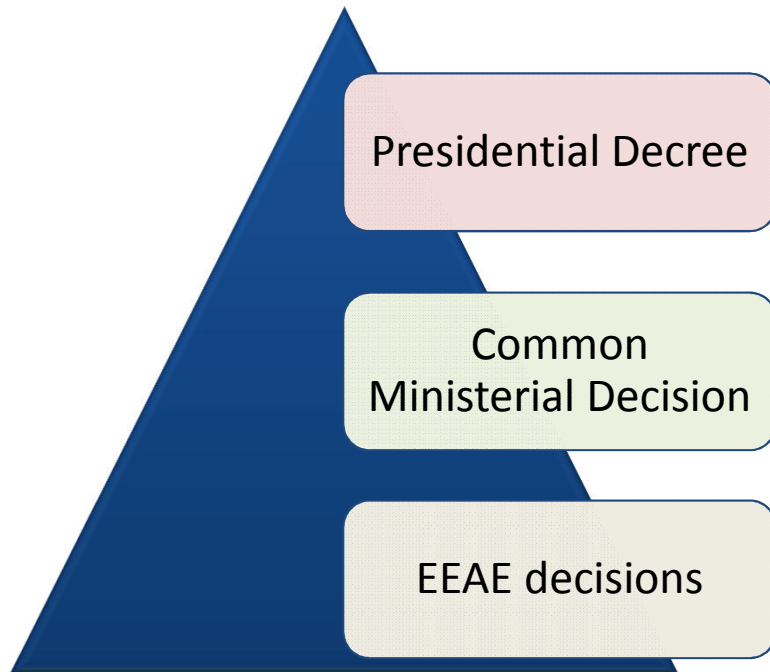
Graded approach:

- High Risk Radiation practices
- Medium Risk Radiation practices
- Low Risk Radiation practices

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Radiation Protection Expert



- The role and responsibilities of the RPE
- The competency of an individual to act as RPE will be recognized by the EEAE
- Procedure of recognition
- Areas of recognition
- Criteria for the recognition

The RPE may be assigned the main task of ensuring the radiation protection of the workers and the members of the public

Radiation Protection Expert



Procedure of recognition

- Recognition by the EEAE Board
- 3 members committee:
 - ✓ 2 EEAE members
 - ✓ 1 Academic or researcher

Areas of recognition

1. X-ray systems for medical applications
2. Open sources and radioactive waste management – medical Applications
3. Linacs and shielded sources for radiation therapy – brachytherapy
4. Industrial Radiography
5. Shielded sources for industrial, research and educational applications
6. Open sources for industrial, research and educational applications and radioactive waste management
7. Accelerators and X-ray systems for industrial, research and educational applications
8. Waste Management
9. NORM
10. Radon

Criteria for the recognition

- Education
(*university degree, postgraduate studies*)
- Working Experience
- OJT as RPE
- Competence in providing advice and on performing safety assessments –
Interview
- Ability to communicate and collaborate with other professionals
- Recognition valid for 7 years
 - ✓ Re -Recognition based on the experience
- Recognition in more than one areas
 - ✓ Recognition for each area

Radiation Protection Officer

RPOs → Graded Approach

- **Medical Applications**
 - ✓ High Risk
 - ✓ Medium Risk
 - ✓ Low Risk
- **Veterinary Applications**
 - ✓ High Risk
 - ✓ Low Risk
- **Industrial, Research and Educational Applications**

Criteria for approval

- **Education**
- **Training** (10 – 60 hrs)
- **Working experience** (3 months – 1 year)
- **OJT** (3 months – 6 months)
- **Re-training period** (5 – 10 years)

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Stakeholder involvement

The approach towards stakeholders:

- reflects the top management decision to establish and **maintain relations with stakeholders** in the field of radiation protection, as an integral element of public policies formulation;
- establishes **channels of communication with groups** of professionals, aiming at the **identification of potential conflict situations**;
- emphasizes EEAE commitment to **transparency**
- **ensures the acceptance** of the suggested regulatory framework and **facilitates the compliance** with the new requirements

The involvement of the stakeholders will be ensured:

- A dialogue process
- Information events
- Thematic meetings
- Consultation on draft documents



Optimization - Sustainability

*A METHODOLOGY FOR
ESTABLISHING A NATIONAL
STRATEGY FOR EDUCATION AND
TRAINING IN RADIATION,
TRANSPORT AND WASTE SAFETY*

Draft Safety Report No.



National Strategy for E&T



**National
Programme**

**EC
Directive**

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- The arrangements made by EEAE for the transposition of the E&T requirements of the 2013/59/EURATOM Directive in the Greek legislation were presented.
- The introduction of the functions of RPEs and RPOs will bring **significant changes in terms of E&T requirements and procedures** at national level which should be faced appropriately.
- **The legislative documents under preparation will set specific E&T requirements** as well as **procedures and criteria** for their recognition and designation respectively in accordance with the **graded approach**.
- For the efficient and effective implementation of the new requirements, **the re-evaluation of the national E&T** needs and the establishment of a national strategy in accordance to these needs are considered necessary

Thank you very much for your attention!



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