

RPE, RPO and MPE Practical implementation in Spanish Regulation

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1. Introduction
2. RPE and RPO
Roles and responsibilities of individuals and organizations responsible for radiation protection in Spain, are presented and compared with the definitions and tasks of RPE and RPO in EU BSS.
3. Conclusions
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Introduction

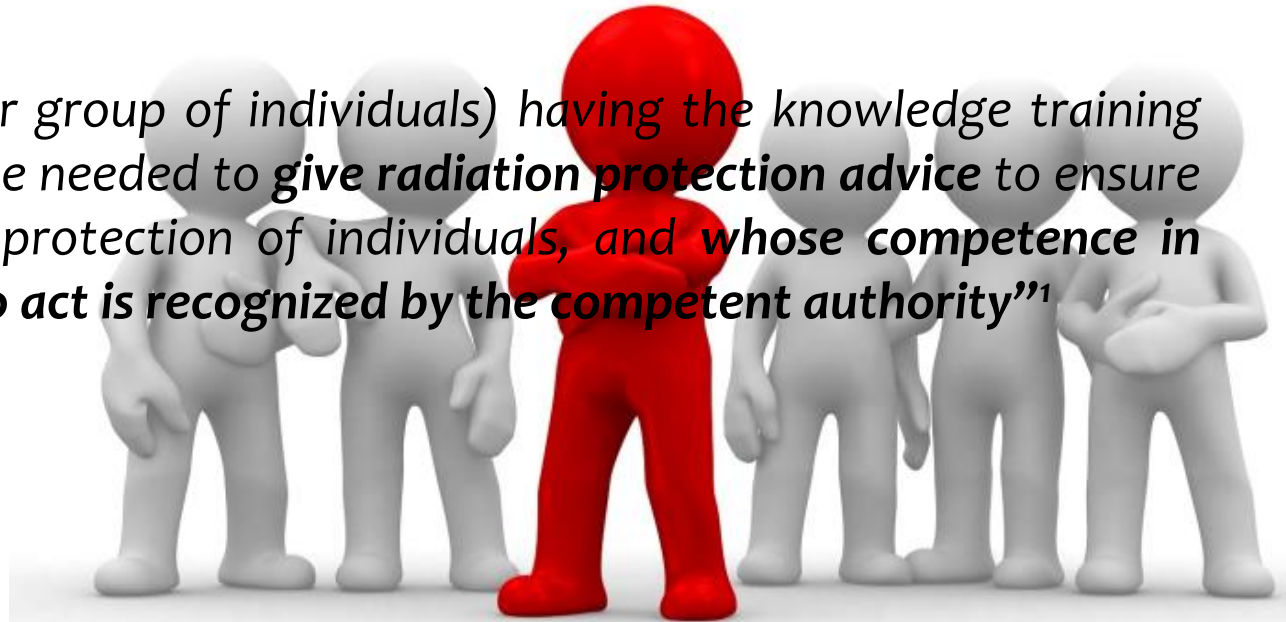
In Spain, the implementation of the BSS regarding RPE and RPO should not be a relevant challenge because, in radiation protection, a staff classification based on the **level of responsibilities and tasks**, has been in place for 30 years, and the functions and tasks considered are quite consistent with those defined in BSS Directive for RPE and RPO.



Directive 2013/59/EURATOM

RPE

*“Individual (or group of individuals) having the knowledge training and experience needed to **give radiation protection advice** to ensure the effective protection of individuals, and whose competence in this respect to act is recognized by the competent authority”¹*



Directive 2013/59/EURATOM

RPE:

“Member States shall ensure that arrangements are made for the establishment of education, training and retraining to allow the recognition of radiation protection experts and medical physics experts, as well as occupational health services and dosimetry services, in relation to the type of practice”²



².Art. 14.2 Directive 2013/59/EURATOM

Directive 2013/59/EURATOM

RPE

Are these requirements consistent with those required in Spain for “its” radiation protection expert?



Spanish Regulation

Radiation protection in Spain is regulated by a Royal Decree, approved in 2001, that implements the provisions of Directive 96/29 Euratom (RD 783/2001).

- According to Spanish regulation, the undertaking is the prime responsible for the implementation of the legal requirements in RP.
- In facilities with a significant radiological risk, a **Radiation Protection Service (RPS)** may be required by the Spanish Regulatory Body (CSN), in order to **give advice** and technical support to the undertaking to ensure appropriate implementation of RP rules.
- The **competence in this respect to act is recognized by the competent authority (CSN)**

Spanish Regulation

Facilities in which the undertaking must be supported by an RPS (CSN INSTRUCTION IS-o8):

- Nuclear power plants and nuclear fuel cycle facilities.
- Hospitals with RT, NM and XR facilities (simultaneously).
- Medical facilities with cyclotrons for medical isotope production and diagnostic use.
- Research facilities involving more than fifty people using or handling radioactive material.

In addition to this, Spanish regulations in Diagnostic Radiology Facilities establish that the participation of an external RPS (authorized by the CSN) is required for:

- The certification of the project at the registration stage.
- Carrying out an annual quality control review at the operation stage.
- The definition and development of Radiation Protection Program
- The periodical certification of conformity required by Spanish regulations

Spanish Regulation

The RPS are essential elements to ensure the application of the radiation protection system in the facilities in which they are required and, for this reason:

- The RPS must be organized **independently** from the rest of the departments of the facility, and the **Head of the RPS (RPE)** must be in **direct functional subordination** to the manager of the facility.
- The **RPE** is a figure that belongs to a superior organization that is the RPS
- The RPS must be authorized by the CSN and **the Head of the RPS (RPE)** must also obtain an official license from the CSN which is **the highest qualification category in Spain in terms of RP. Validity is for life (It's no need administrative re-recognition)** and for one specific facility .

Spanish Regulation

Are these requirements consistent with those required in Spain for “its” radiation protection expert?



The functions of the Head of the RPS are quite consistent with those defined in the EU BSS for RPE.

Spanish Regulation

Also, in Spain,

- the Head of RPS has functions regarding not only to exposed workers but also **to the protection of the public and management of radioactive waste.**

“The radiation protection expert may be assigned, if provided for in national legislation, the tasks of radiation protection of workers and members of the public”³.

³ Art. 82 Directive 2013/59/EURATOM

Radiation Protection Expert (RPE)

Spanish Regulation

Requirements for basic competence for the Head of an RPS (RPE)

Education:

- **An official Bachelor's degree**, or a degree in Engineering or Architecture, or an officially recognized equivalent, in the case of non-national degrees.

Specific training. The following shall be required:

- Training in the theoretical background and practical aspects of radiation protection **(300 h)**
- Knowledge in matters related to radiation safety, with respect to the type of facilities where services are going to be rendered.

Experience and practice.

- A minimum **three-year experience working in radiation protection.**

In the case of X-ray facility for purposes of medical diagnosis, exclusively, **a minimum six month experience** must be proven within the field of control and/or monitoring of radiation safety of facilities for medical radiodiagnosis (graded approach)

Spanish Regulation

In addition to these general requirements, Spanish Regulations (RD 183/2008) also establish that the Head of a RPS in **medical facilities** must have an official recognition as **Medical Physics Expert (MPE)**.

Therefore, in **medical exposure** the functions assigned to the head of an RPS are consistent with those defined in the BSS for **MPE**



Spanish Regulation

Regarding identify individuals or organizations with authority to award RPE recognition:

In Spain, the Competent Authority undertakes both:

- **The assessment of RPE competence, and...**
- **Subsequent awarding of RPE recognition.**

Directive 2013/59/EURATOM

RPO

“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”⁵.

“Member States may make arrangements for the establishment of education, training and retraining to allow the recognition of radiation protection officers, if such recognition is provided for in national legislation”⁶.

⁵ Art.4.74 Directive 2013/59/EURATOM

⁶ Art. 14.3 Directive 2013/59/EURATOM

Radiation Protection Officer (RPO)

Spanish regulation

The tasks assigned in the Directive to the RPO can be considered consistent to those assigned in Spanish regulation to the so-called “supervisor”.

Supervisor: “Person with a specific license issued by the Nuclear Safety Council (CSN) which enables to manage the operation of a nuclear or radioactive facility”⁸.

⁸ Art 47 RD 1836/1999

Spanish regulation

Core competences requirement:

- **The education** requirement for supervisors is an official **Bachelor's degree** or a **medium Bachelor's degree**.
- It is necessary to successfully complete the courses previously approved by the Nuclear Safety Council for the license and whose programs contain, according to the Nuclear Safety Council, the knowledge required for the license and type of practice.
- Validity for 6 or 5 years (depending on the type of practice).
- Personal and specific to the facility concerned.
- The competence **in this respect to act is recognized by the competent authority**.

Spanish regulation

RPO

The Competent Authority undertakes:

- The assessment of RPO competence (regarding education, training and experience) and...
- Subsequent awarding of RPO recognition

Spanish regulation

Furthermore, in Spain people who work under the immediate direction of a supervisor handling equipment or radioactive elements are called “**operators**” and also need a specific license from the CSN.

The qualification requirement for operators is, at least, a **second grade technological vocational training (depending on the type of practice)**.

The requirements to get the license to supervise and operating nuclear and radioactive facilities are set out in the Royal Decree of nuclear and radioactive facilities (RD 1836/1999) and in different CSN safety guides.

Conclusions (I)

1. Regarding MPE, RPE and RPO, the transposition of the Directive will not lead to a major change in the Spanish Regulation.
2. The existing radiation protection system in Spain based on a staff classification regarding the level of responsibilities and tasks are quite consistent with those defined in BSS Directive for MPE, RPE and RPO.
3. In any case, the competence in this respect to act is recognized by the CSN.
4. The Competent Authority (CSN) undertakes the assessment of RPE, MPE and RPO competences (regarding education, training and experience) and subsequent awarding of each recognition.

Conclusions (II)

5. In facilities with a significant radiological risk, a Radiation Protection Service (RPS) may be required by the Spanish Regulatory Body (CSN), in order to give advice and technical support to the undertaking to ensure appropriate implementation of RP rules.
6. The RPE is a figure that belongs to a superior organization: The RPS.
7. The RPS must be authorized by the Competent Authority.
8. The functions of the Head of RPS in Medical facilities are consistent with those defined for MPE.
9. The functions of the Head of RPS in the rest of facilities are quite consistent with those defined for RPE.

Key points to be in account to facilitate the harmonization in implementation

Mutual recognition is desirable, nevertheless:

1. There must be consistency between the education, training and experience requirements and the whole process where recognition is awarded.
2. The recognition system can be different according to the nature of the practice, once the minimum qualification requirements have been fulfilled.
3. There could be difficult practical implementation regarding the different regulatory control of the practices in Member States (notification, registration or licensing).
4. The graded approach could be useful depending on the regulatory control of the practice.



**Thank you very
much for your
attention!!**

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