Revision of the health physics system: RPE/RPO

Jolien Berlamont
Health & Environment – Protection of Health
Nuclear Inspector Medical Establishments

FANC - AFCN
federaal agentschap voor nucleaire controle
agence fédérale de contrôle nucléaire
www.fanc.fgov.be
Project: Revision of the health physics system

- **GRR -2001 (ARBIS/RGPRI)** *needs to be improved*
  - Clarification of the role and responsibilities of the Authorized Inspection Organisations (AIOs)
- **Recommendation of the IRRS mission (2013):**
  - Clear separation between the roles and responsibilities of the licensees vs those of the regulatory body
- **Partial transposition of the European Directive**
  - Radiation protection expert (RPE) and radiation protection officer (RPO)
New concept

UNDERTAKING X

Each licensee needs to set up a Health Physics Department (HPD)
New concept
Tasks and responsibilities

1. Integrated risk analysis (Legislation on Well-being)
2. Internal Health Physics department (HPD)
3. HP: 3 types of tasks
   1. Frequent and systematic execution of the radiation protection tasks in the workplace: **Radiation Protection Agent** (AgRP)
   2. Specific tasks that require the intervention of a **Qualified Health Physics Expert** (QHPE)
   3. Tasks specific to safety in Class I facilities

QHPE internal (head HPD) – Cl I or external (from AIO) – Cl II-III, T1, T2

transposition of BSS: RPE/RPO
Stakeholder involvement

Stakeholder meeting in June 2016
Presentation of the revised health physics system + stakeholders comments (deadline September 30th 2016)
BVS: invited + comments

Stakeholder information in April 2017:
Presentation health physics system 2.0 + Frequently Asked Questions
Individual responses to comments: May 2017

→ now towards official advisory organs

transposition of BSS: RPE/RPO
Radiation Protection Expert = Qualified Health Physics Expert

**BSS:**
- Definition RPE = individual/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 + competence recognized by the competent authority;
- Specific tasks
- E&T requirements
- Recognition

**Belgian project:**
- Implemented via QHPE
- RP tasks from BSS (list of tasks in accordance with BSS)
- Recognition by FANC (art. 73)

+ more than advice: responsibility to check and approve

+ competence in safety (cannot be separated from radioprotection)

*Safety of nuclear installations (RD 30/11/2011)]
Qualified Health Physics Expert

• Examine and approve:
  - Risk analysis RP/nuclear safety
  - Delineation and signalization controlled area
  - (individual) monitoring programs / dosimetry
  - Procedures / quality assurance
  - Education and training of Radiation Protection Agents
  - New installations or modification

• Delivery of installations/practices
• Preparedness and response in emergency exposure situations
• Periodic visits in facilities (graded approach)

…

transposition of BSS: RPE/RPO
Recognition the Qualified Health Physics Expert

- Recognition as QHPE of class I, II, T1, T2: Art 73 GRR-2001
- Recognition criteria
  - Graduated as MSC, Ir., Ing.
  - Training: Radiation protection and Nuclear Safety
    - Radiation protection: 12 ECTS
    - Technology and nuclear safety: class I: 24 or 18 ECTS
class IIA: 100h
class II/III: 50h
transport: 35h T1 or
  20h T2
  - Limitations: duration/installations/...
  - Continuous training per 3 years: 120h (I), 60h (II), 24h (T1), 20h (T2)
Radiation Protection Officer = Radiation Protection Agent

**BSS:**
- **Definition 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;

- **Specific tasks**

**Belgian project:**
- Implemented via health physics department: from single individual (AgRP) to Department (lead by QHPE)
- HPD always within the organisation
- Report to license holder
- Tasks executed within the organisation (list of tasks in accordance with BSS)

transposition of BSS: RPE/RPO
Radiation Protection Agent

• **Role of the RP Agent**

  The systematic execution of the tasks linked to radiation protection in the workplace

  → "daily" tasks

  → according to procedures approved by the Qualified Health Physics Expert

  → belongs (partially) to the Health Physics department

• **Education & training** linked to the type of practice/installation + approved by the Qualified Health Physics Expert
Education & training of the radiation protection agent

1. Initial training:
   - theoretical module:
     = basic module + additional module
     duration & content depends on risk
     (type of practice/installation)
   - appropriated practical experience
     → approval from by the Qualified Health Physics Expert!

2. Continuous education
Education & training of the radiation protection agent

• Continuous education:

Includes:
- Accompanying the Qualified Health Physics Expert during his/her visit in the installations;
- Regulatory watch;
- Participation on the evolution of internal practices and procedures;
- Return of experience
- ...
Questions?