



Requirements on Exemption and Clearance in the European Union

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International Conference on Radiation Safety: Improving Radiation Protection in Practice, 9 – 20 November 2020

European Union



Legal Basis

- Treaty establishing the European Atomic Energy Community (Euratom Treaty) – 1957
- Treaty of Lisbon – 2009

The Euratom Treaty (1957)

Chapter on health and safety



Basic safety standards

- Health protection of public, workers and patients against dangers arising from ionising radiation
- Ensure application

Article
31

Articles
35 & 36

Radioactivity in air, water and soil

- Continuous monitoring (Commission right to verify)
- Information on levels

Article
37

Radioactive discharges into the environment (gaseous, liquid or solid)

- Radiological impact on other Member States

Euratom Secondary Legislation



Radiation Protection

- Basic Safety Standards Directive
- Drinking Water Directive
- Food and feed Regulation

Modernised and consolidated

Nuclear Safety

- Nuclear Safety Directive

Information exchange in case of a nuclear accident or radiological emergency

- ECURIE (European Community Urgent Radiological Information Exchange)
- EURDEP (EUropean Radiological Data Exchange Platform)

Radioactive Waste Management

- Spent fuel and radioactive waste management Directive

Basic Safety Standards Directive

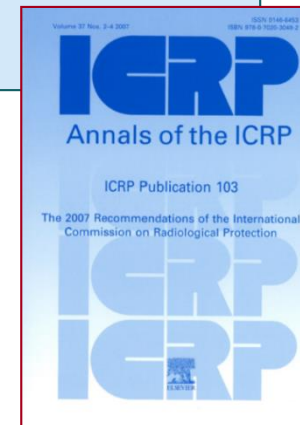
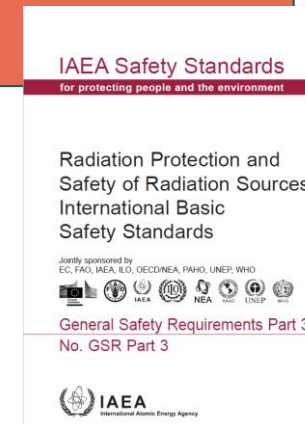
Legally binding requirements on

- Protection of **workers**, members of the **public**, **patients**
- Covering all radiation sources, including natural
- **Regulatory control of practices**
 - *Exemption and Clearance*
- Emergency preparedness and response
- Safety and control of high-activity sealed sources
- Legacy – existing situations & contaminated sites
- ...



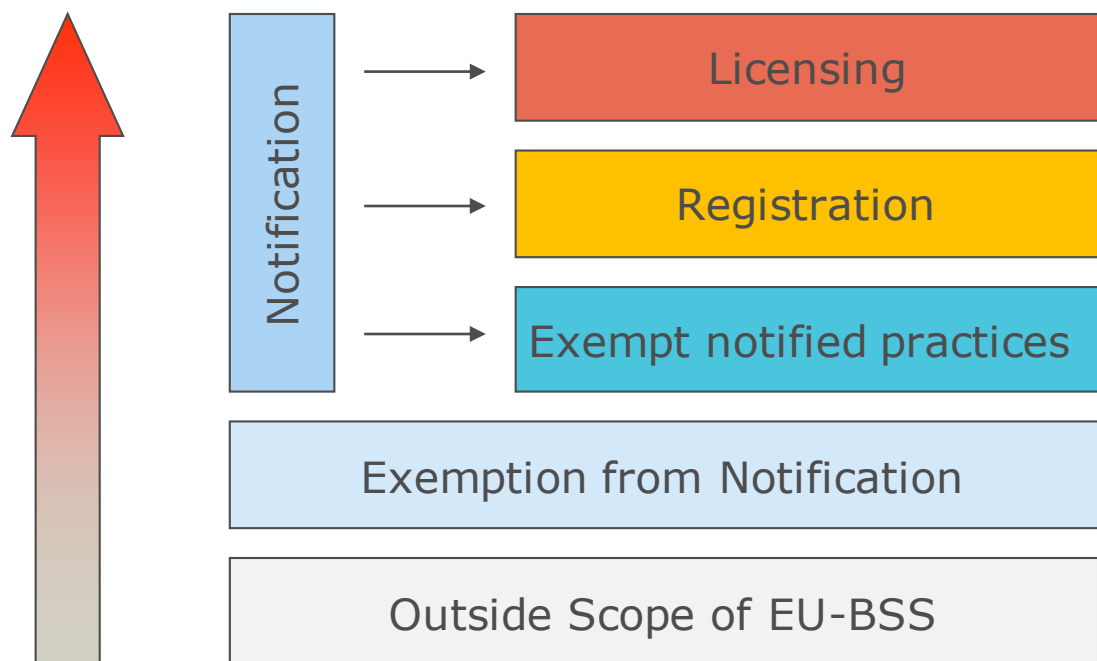
Taking account of
ICRP Publications

Similar level of protection
as International BSS



Regulatory control of practices

Graded approach commensurate with magnitude and likelihood of exposures



Justified practices

- Exemption from Notification
- Notification
- Exemption of notified practices
- Authorisation
 - Registration
 - Licensing

Materials from authorised practices

- Release of materials from regulatory control for disposal, recycling, reuse –
Clearance

Exemption from notification



Justified practices involving radioactive material

- Generic exemption values
 - Moderate amounts – total activity
 - Any amount – activity concentration
- (Higher) Values for specific applications
 - Established by competent authority
 - Satisfying general exemption criteria

Practice

- Radiological risk low
- Justified
- Inherently safe

Artificial
radionuclides
 $\leq 10 \mu\text{Sv/year}$

Naturally occurring
radionuclides
 $\leq 1 \text{ mSv/year}$

Justified practices involving apparatus

- Containing a sealed source
 - Electrical cathode ray tube
- $\leq 1 \mu\text{Sv/hour}$ at 0.1 m

Exemption from authorisation

Exemption of notified practices from authorisation

- Regulatory control limited to notification and inspections
- General exemptions
 - Established by Member States
 - Competent authority decides based on general exemption criteria



Clearance (2)

Release of materials from authorised practices for disposal, recycling, reuse

- Naturally occurring radionuclides used for their **radioactive, fissile or fertile properties** $\leq 10 \mu\text{Sv/year}$
- Deliberate dilution not permitted



Incorporation into building materials

- Generic clearance values for naturally occurring radionuclides **not** applicable
- Separate requirements in BSS Directive

Naturally occurring radionuclides used for their **radioactive, fissile or fertile properties** $\leq 10 \mu\text{Sv/year}$



Transposition and implementation

Official Journal of the European Union



English edition

Legislation

Contents

II *Non-legislative acts*

DIRECTIVES

- ★ 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

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ISSN 1977-0677

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European Union Member States

- Transposed BSS requirements into national legislations
- Implementation into practice (ongoing)

European Commission

- Checking national transpositions – **Completeness and Compliance** (ongoing)
- Assessing implementation into practice (later)

Résumé

Europe

- More than 60 years of protecting individuals from ionising radiation
- Legally binding requirements to ensure highest level of protection of members of the public, workers and patients
- Exemption and clearance
 - Important concepts of regulatory control
 - Approach and numerical values internationally aligned



Thank you for your attention