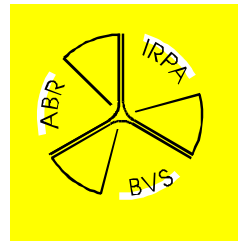


**BELGISCHE VERENIGING  
VOOR  
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## **Public Communication on Nuclear Emergencies**

### **Seminar of the Belgian Society for Radiation Protection**

Friday 4<sup>th</sup> March 2016

Brussels

Palace of the Academies/Throne Building – Espace Roi Baudouin

## **European Requirements for public communication on nuclear emergencies**

*Augustin Janssens*

*formerly European Commission*

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# Richtlijn 2013/59/Euratom van de Raad van 5 december 2013 tot vaststelling van de basisnormen voor de bescherming tegen de gevaren verbonden aan de blootstelling aan ioniserende straling, ....

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Uitgave  
in de Nederlandse taal

Wetgeving

57e jaargang  
17 januari 2014

Inhoud

II Niet-wetgevingshandelingen

RICHTLIJNEN

- ★ Richtlijn 2013/59/Euratom van de Raad van 5 december 2013 tot vaststelling van de basisnormen voor de bescherming tegen de gevaren verbonden aan de blootstelling aan ioniserende straling, en houdende intrekking van de Richtlijnen 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom en 2003/122/Euratom ..... 1

# Revision of EU-BSS

*Allow for ICRP/IAEA*

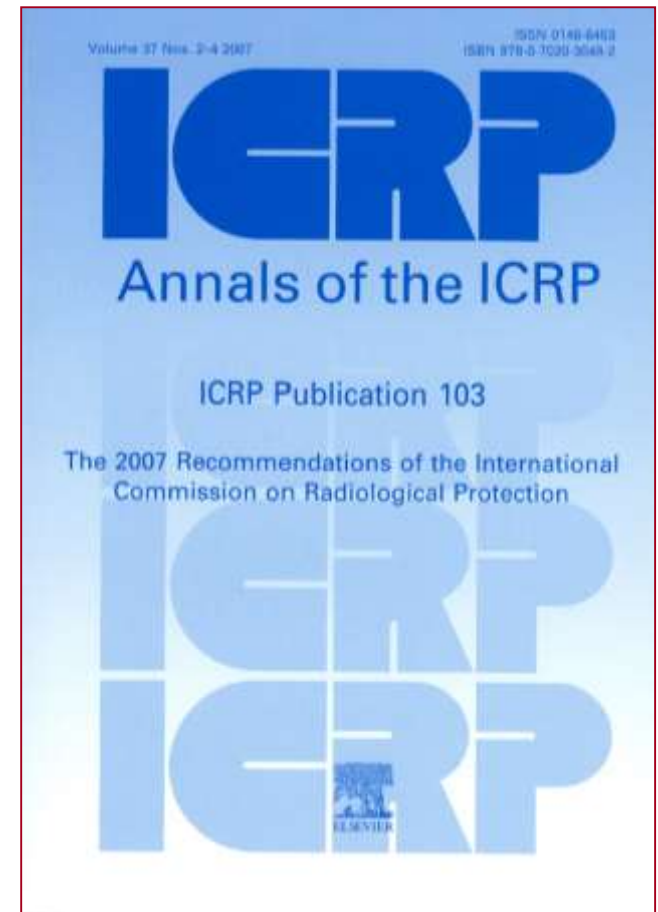
- **Exposure situations**  
rather than processes:  
practices/interventions
- **Incorporate natural radiation sources**  
Strengthen the requirements

*Review of regulatory control system*

- **Graded approach to regulatory control**

*Consolidation of 5 current Directives*

- **All categories of exposure**



# Consolidation of European Radiation Protection Legislation

*Basic Safety Standards, Directive 96/29/Euratom*

**Control of high-activity sealed radioactive sources and orphan sources, Directive 2003/122/Euratom**

**Medical Exposures, Directive 97/43/Euratom**

**Outside Workers, Directive 90/641/Euratom**

**Public Information, Directive 89/618/Euratom**

*Correlation table referred to in Article 107 and Annex XIX*

*Radon, Commission Recommendation 90/143/Euratom*

# **COUNCIL DIRECTIVE 89/618/Euratom**

*Council Directive 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 (Official Journal No L 357/31)*

*TITLE I Objectives and definitions*

*TITLE II Prior information*

*TITLE III Information in the event of a radiological emergency*

*TITLE IV Information of persons who might be involved in the organization of emergency assistance in the event of a radiological emergency*

# COUNCIL DIRECTIVE 89/618/Euratom

## *TITLE I Objectives and definitions*

**Article 1** *This Directive is intended to define, at Community level, common objectives with regard to measures and procedures for informing the general public for the purpose of improving the operational health protection provided in the event of a radiological emergency.*

**Article 2** *For the purposes of this Directive, 'a radiological emergency' means any situation:*

- 1. that follows : (a) an accident in the territory of a Member State; or (b) the detection, within or outside its own territory, of abnormal levels of radioactivity which are likely to be detrimental to public health in that Member State ; or (c) ... (d)...*
- 2. that is attributable to (a) any nuclear reactor, wherever located; (b) any other nuclear-fuel-cycle facility; (c) any radioactive-waste management facility; (d) the transport and storage of nuclear fuels or radioactive wastes ; (e) the manufacture, use, storage, disposal and transport of radioisotopes for agricultural, industrial, medical and related scientific and research purposes ; and (f) the use of radioisotopes for power generation in space vehicles.*

# COUNCIL DIRECTIVE 89/618/Euratom

## *Article 3*

*For the purposes of applying this Directive, the terms 'significant release of radioactive material' and 'abnormal levels of radioactivity which are likely to be detrimental to public health' are to be understood as covering situations likely to result in members of the public being exposed to doses in excess of the dose limits*

- **prescribed under the Directives laying down basic Community safety standards for radiological protection.**
- **see in particular Article 12 of Directive 80/836/Euratom.**

# COUNCIL DIRECTIVE 89/618/Euratom

Whereas **Council Decision 87/600/Euratom** of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency requires all Member States which decide to take emergency measures to protect the general public, either as a result of abnormally high levels of radioactivity in the environment, or following an accident from which a significant release of radioactive material occurs or is likely to occur, to notify the Commission and the Member States which are, or are likely to be, affected, of the protective measures which they have taken or planned and also of any measures which they have taken or planned and also of any measures which they have taken or planned to inform the general public ;



# New BSS: main novelties

## *Scope:*

- **Radon in dwellings, workplaces**
- **Building materials**
- **Post-accidental situations**
- **Protection of the environment**

## *Graded approach to regulatory control*

- **NORM industries managed as practices**

## *Harmonisation/transparency*

- **Justification**

Justification and type approval of consumer goods,

Justification and regulatory control of non-medical imaging exposures

- **Exemption/clearance criteria**
- **Licensing requirements**

## *Emergency preparedness*

- **International coordination**
- **Emergency workers**

# BSS Chapters

*I Subject matter and scope*

*II Definitions*

*III System of radiation protection*

***IV Requirements for radiation protection education, training and information***

*V Justification and regulatory control of practices*

***VI Occupational exposures***

*VII Medical exposures*

***VIII Public exposures***

- Protection of members of the public and long-term health protection in normal circumstances
- **Emergency exposure situations**
- Existing exposure situation

***IX General responsibilities of member states and competent authorities and other requirements for regulatory control***

- Institutional infrastructure
- Control of radioactive sources
- Orphan sources
- **Significant events**
- **Emergency exposure situations**

*X Final provisions*

# BSS Chapters

I *Subject matter and scope*

II *Definitions*

III *System of radiation protection*

IV *Requirements for radiation protection education, training and information*

- **Article 17 Prior information and training for emergency workers**

V *Justification and regulatory control of practices*

VI *Occupational exposures*

- **Article 53 Emergency occupational exposure**

VII *Medical exposures*

VIII *Public exposures*

- **Protection of members of the public and long-term health protection in normal circumstances**

- **Emergency exposure situations**

- **Article 70 Information to the members of the public likely to be affected in the event of an emergency**

- **Article 71 Information to the members of the public actually affected in the event of an emergency**

- **Existing exposure situation**

IX *General responsibilities of member states and competent authorities and other requirements for regulatory control*

- **Article 99 International cooperation**

X *Final provisions*

# COUNCIL DIRECTIVE 89/618/Euratom

*TITLE I Objectives and definitions*

*TITLE II Prior information*

*TITLE III Information in the event of a radiological emergency*

*TITLE IV Information of persons who might be involved in the organization of emergency assistance in the event of a radiological emergency*

## **Article 70 Information to the members of the public *likely to be affected* in the event of an emergency**

- 1. Member States shall ensure that the members of the public likely to be affected in the event of an emergency are given information about the health protection measures applicable to them and about the action they should take in the event of such an emergency.*
- 2. The information supplied shall include at least the elements set out in Section A of **Annex XII**.*
- 3. The information shall be communicated to the members of the public referred to in paragraph 1 without any request being made.*
- 4. Member States shall ensure that the information is updated and distributed at regular intervals and whenever significant changes take place. This information shall be permanently available to the public.*

## **Article 71 Information to the members of the public *actually affected* in the event of an emergency**

- 1. Member States shall ensure that, when an emergency occurs, the members of the public actually affected are informed without delay about the facts of the emergency, the steps to be taken and, as appropriate, the health protection measures applicable to these members of the public.*
- 2. The information provided shall cover those points listed in Section B of **Annex XII** which are relevant to the type of emergency.*

# Annexes

## *ANNEX I*

*Reference levels for public exposure as referred to in Articles 7 and 101*

## *ANNEX XI*

*Emergency management systems and emergency response plans as referred to in Articles 69, 97 and 98*

## *ANNEX XII*

*Information to members of the public about health protection measures to be applied and steps to be taken in the event of an emergency as referred to in Articles 70 and 71*

*A. Prior information to the members of the public likely to be affected by an emergency*

*B. Information to be provided to the affected members of the public in the event of an emergency*

## **A. Prior information to the members of the public *likely to be affected* by an emergency**

- 1. Basic facts about radioactivity and its effects on human beings and on the environment;*
- 2. The various types of emergency covered and their consequences for the public and the environment;*
- 3. Emergency measures envisaged to alert, protect and assist the public in the event of an emergency;*
- 4. Appropriate information on action to be taken by the public in the event of an emergency*



## **B. Information to be provided to the affected members of the public *in the event of an emergency***

1. On the basis of the emergency response plan previously drawn up in the Member States, the members of the public actually affected in the event of an emergency shall rapidly and regularly receive:
  - (a) information on the type of emergency which has occurred and, where possible, its characteristics (e.g. its origin, extent and probable development);
  - (b) advice on protection, which, depending on the type of emergency, may:
    - (i) cover the following: restrictions on the consumption of certain foodstuffs and water likely to be contaminated, simple rules on hygiene and decontamination, recommendations to stay indoors, distribution and use of protective substances, evacuation arrangements;
    - (ii) be accompanied, where necessary, by special warnings for certain groups of the members of the public;
  - (c) announcements recommending cooperation with instructions or requests by the competent authority.

## **B. Information to be provided to the affected members of the public in the event of an emergency (cont.)**

2. *If the emergency is preceded by a pre-alarm phase, the members of the public likely to be affected shall already receive information and advice during that phase, such as:*
  - (a) *an invitation to the members of the public concerned to tune in to relevant communication channels;*
  - (b) *preparatory advice to establishments with particular collective responsibilities;*
  - (c) *recommendations to occupational groups particularly affected.*
  
3. *This information and advice shall be supplemented, if time permits, by a reminder of the basic facts about radioactivity and its effects on human beings and on the environment.*

# COUNCIL DIRECTIVE 89/618/Euratom

*Council Directive 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 (Official Journal No L 357/31)*

*TITLE I Objectives and definitions*

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# Article 17 Prior information and training for emergency workers

- 1. Member States shall ensure that emergency workers who are identified in an emergency response plan or management system are given adequate and regularly updated information on the health risks their intervention might involve and on the precautionary measures to be taken in such an event. This information shall take into account the range of potential emergencies and the type of intervention.*
- 2. As soon as an emergency occurs, the information [] shall be supplemented appropriately, having regard to the specific circumstances.*
- 3. Member States shall ensure that the undertaking or the organisation responsible for the protection of emergency workers provides to emergency workers [] appropriate training as provided for in the emergency management system []. Where appropriate, this training shall include practical exercises.*
- 4. Member States shall ensure that, in addition [], the undertaking or the organisation responsible for the protection of emergency workers provides these workers with appropriate radiation protection training and information.*

# Article 53 Emergency occupational exposure

1. Member States shall ensure that emergency occupational exposures shall remain, whenever possible, below the values of the dose limits laid down in Article 9.

2. For situations where the above condition is not feasible, the following conditions shall apply:

a) reference levels for emergency occupational exposure shall be set, in general below an effective dose of 100 mSv;

b) in exceptional situations, in order to save life, prevent severe radiation-induced health effects, or prevent the development of catastrophic conditions, a reference level for an effective dose from external radiation of emergency workers may be set above 100 mSv, but not exceeding 500 mSv.

3. Member States shall ensure that emergency workers who are liable to undertake actions whereby an effective dose of 100 mSv may be exceeded are clearly and comprehensively informed in advance of the associated health risks and the available protection measures and undertake these actions voluntarily.

4. [] radiological monitoring of emergency workers. []

5. [] special medical surveillance of emergency workers []

# Article 99 International cooperation

- 1. Member States shall cooperate with other Member States and with third countries in addressing possible emergencies on its territory which may affect other Member States or third countries, in order to facilitate the organisation of radiological protection in those Member States or third countries.*
- 2. Each Member State shall, in the event of an emergency occurring on its territory or likely to have radiological consequences on its territory, promptly establish contact with all other Member States and with third countries which may be involved or are likely to be affected with a view to sharing the assessment of the exposure situation and coordinating protective measures and public information by using, as appropriate, bilateral or international information exchange and coordination systems. These coordination activities shall not prevent or delay any necessary actions to be taken on a national level.*

*(Draft) Council conclusions: Off-Site Nuclear Emergency Preparedness and Response  
STRESSING the need for coherent protective measures along adjacent national borders [] in case of an emergency, as a necessary condition for the effectiveness of emergency management,  
STRESSING the benefits of involving civil society in preparedness activities, in particular when organising nuclear and radiological emergency exercises, to increase transparency and public participation, and to improve public confidence in the arrangements, ...*

- Invites MS's to include the alignment of protective measures along borders as a factor in emergency decision making in accordance with the optimised protection strategy,**
- Invites MS's to consider the principle that in the first hours of an accident, applied protective measures take into account those applied in the MS where the accident has occurred, based on the information received from that MS, taking into account Article 99 (2) of Council Directive 2013/59/Euratom**

# Implications for the future

## *Emergency preparedness*

- **Enhanced cooperation between MS's/TSO's**
- **Share resources for assessment**
- **Build trust between MS's**

## *Integration of nuclear safety and radiation protection cultures*

### *Beyond the requirements of the Directive,*

- **further develop and harmonise emergency preparedness,**
- **including stakeholder involvement,**
- **and reflect on improving the adequacy of information provided to the population.**

# Other legislation and initiatives

*COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT on the comprehensive risk and safety assessments ("stress tests") of nuclear power plants in the European Union and related activities {SWD(2012) 287 final}*

*COUNCIL DIRECTIVE 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18) Amended by Council Directive 2014/87/Euratom of 8 July 2014*

*HERCA-WENRA: Common Approach for better cross-border coordination of protective actions during the early phase of a nuclear accident (joint meeting in Stockholm on 21 October 2014)*

*Convention on access to information, public participation in decision-making and access to justice in environmental matters, done at Aarhus, Denmark, on 25 June 1998*

- **REGULATION (EC) No 1367/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006 on the application of the provisions of the Aarhus Convention ... to Community institutions and bodies.**



Aarhus Convention and Nuclear Roundtable

"Emergency Preparedness and Response to nuclear accidental and post-accidental situations (EPR&R)"

22-23 March 2016

Location: Albert Borschette Center, Room AB-0D,  
36, rue Froissart- 1040, Brussels