SAFETY CULTURE AND CURRENT APPROACHES OF REGULATING RADIOLOGICAL SAFETY OF MEDICAL AND INDUSTRIAL PRACTICES IN ROMANIA



International Conference on Human and Organizational Aspects of Assuring Nuclear Safety — Exploring 30 Years of Safety Culture IAEA-CN-237

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A different perspective

- Safety culture discussions usually involve nuclear power plants
- Safety culture is transferable across industries
- Safety culture in medical and industrial industries in Romania



IAEA Characteristics and Attributes





Regulatory framework content

• Law no. 111/1996 on safe deployment of nuclear activities, regulation, authorisation and control of nuclear activities, republished, representing the Romanian nuclear act

- Article 18, Para. (1), lit. a)
- Article 25





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workers must provide protection equivalent to that offered the operator's established workers, by means of common

Whereas, to optimize the protection of outside workers, it

Non-Destructive Testing practice with ionizing radiation

- The licensee shall establish and *implement a training program* that includes:
 - (B5. Management assures that there is sufficient and competent staff)
 - Radiation protection operational procedures including the risks associated with the activity and the significance of the warning means
 - (D.5 Work processes are well understood by all individuals)
 - Instructions on the use of installations and dosimetric monitoring devices etc.
 - (C.3. There is a high level of compliance with regulations and procedures)



Radiotherapy Practice

- The licensee shall establish and implement a safety culture in order to:
 - Encourage an active attitude
 - (E.1 A questioning attitude prevails at all organizational levels)
 - Improve safety and radiation protection knowledge
 - (E.7 There is a systematic development of staff competencies)
 - Discourage complacency
 - (B.6 Management seeks the active involvement of staff in improving safety)
 - Effectively and actively support those with radiation protection responsibilities
 - (B5. Management assures that there is sufficient and competent staff)



Radiotherapy Practice

• Create a *safety and protection policy*, that:

- (D.3 Documentation and procedures quality is a management concern)
- Stipulates the importance of radiotherapy protection safety that emphasizes that the main aim is medical treatment and patient safety
 - (A2. Safety is a primary consideration in the allocation of resources)
- Ensure that the policy is known by the management and the medical personnel
 - (C.2. Roles and responsibilities are clearly defined and understood)
- Includes a quality management program
 - (D.2 Consideration for all types of safety, including industrial and environmental safety and security, is evident)



Diagnostic and Interventional Radiology Practices

- A safety culture is to be implemented and maintained in order to:
 - Encourage a learning attitude to protection and safety
 - (C.5 Ownership for safety is evident at all organizational levels and by all individuals)
 - Discourage complacency
 - (B.10 Management seeks the active involvement of individuals in improving safety)
 - Support persons with direct responsibility for radiation protection
 - (D.7 Working conditions regarding time pressures, work load and stress are of management concern)
 - Establish a radiation protection programme, including a quality management programme
 - (C.3. There is a high level of compliance with regulations and procedures)



Diagnostic and Interventional Radiology Practices

- To comply with this requirement, the licensee shall:
 - Commit to an effective protection and safety policy, particularly at managerial level
 - (A.1 High priority to safety: shown in leadership attitudes, decisionmaking, documentation, and communications)
 - Support persons with direct responsibility for radiation protection
 - (D.7 Working conditions regarding time pressures, work load and stress are of management concern)
 - Clearly assign prime importance to protection and safety while recognizing that the prime objective is the medical diagnostic, health and safety of the patients
 - (A.4 Individuals are convinced that safety and production go 'hand in hand'
 - Make this policy known to the medical personnel
 - (B.5 Management assures that there is sufficient and competent staff)
 - Establish a radiation protection programme, which includes a quality management programme
 - (C.3 There is a high level of compliance with regulations and procedures)



Regulations under revision

L 13

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English edition	Legislation	Volume 57 17 January 2014
Contents		
	II Non-legislative acts	
	DIRECTIVES	
	★ Council Directive 2013/59/Euratom of 5 December 2013 laying down basic saprotection against the dangers arising from exposure to ionising radiati Directives 85/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/4 2003/122/Euratom	ifety standards for on, and repealing 13/Euratom and 1
Price: EUR 4		
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- Fundamental Norms for Radiological Safety (NSR 01)
- Norms for Radiological Safety Licensing Procedures (NSR-03)
- Norms on radiation protection of individuals in case of medical exposure to ionizing radiation (NSR 04)
- Norms on Individual Dosimetry (NSR 06)
- Norms on operational radiation protection of the development of non-destructive tests practice (NSR-10)



Regulations under revision

- Norms of Radiological Safety on Diagnostic and Interventional Radiology Practices (NSR 11)
- Norms of Radiological Safety on radiotherapy practice (NSR-12)
- Norms of Radiological Safety on nuclear medicine practice (NSR-14)
- Norms on orphan sources and control of high activity sealed radioactive sources (NSR 16)





THANK YOU FOR YOUR ATTENTION

