IAEA Education and Training policies and experiences related to Occupational Radiation Protection in Medicine.

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IAEA Functions in Radiation & Waste Safety (Article III.A.6)

To establish standards of safety

To provide for the application of international standards

To facilitate and service international conventions and other undertakings
Education and Training is one of the mechanisms and primary strategies for assisting Member States in the application of the standards.
IAEA’s education and training activities in radiation, transport and waste safety

follow the IAEA vision, strategy and resolutions of its annual General Conferences and reflect the latest IAEA standards and guidance. IAEA prepared a “Strategic Approach to Education and Training in Radiation and Waste Safety” (Strategy on Education and Training) aiming at establishing, by 2010, sustainable education and training programmes in Member States, which was endorsed by the GC(45)/RES/10C in 2001
Objectives

• To strengthen radiation, transport and waste safety infrastructures through building competence in Member States.

• To facilitate the development and implementation of a national strategy for education and training for radiation, transport and waste safety in Members States.

• To ensure that education and training programmes in Member States address the requirements of the International Basic Safety Standards (BSS) and associated IAEA safety standards.
**Key milestones**

- **Initial actions (Action Plan)**
- **Policy on & implementation of the trainers of initial modules**
- **Completion of initial training centers established**
- **Annual summary of training activities from centers**
- **Portfolio of training activities**

**Self sustainable training in MSs**

Year:
- 2001
- 2002
- 2003
- 2005
- 2006
- 2008
- 2010
Strategic Approach to Education and Training

To ensure that sustainable education and training is available in Member States by 2010 through:

• Developing and updating standardized syllabi, training aids and materials;
• Creating a network of regional, national and collaborating centers;
• Training the trainers in radiation protection and safety and
• Encouraging all Member States to develop and implement strategies for building competence.
Strengthened radiation and waste safety through education & training

- Postgraduate Education Course in radiation protection and the safety of radiation sources
- Specialized Training Courses in thematic areas
- Training of Radiation Protection Officers
- Train the Trainers Workshops

Competence building tools

IAEA + Training Regional Centres
TRAINING PACKAGES AVAILABLE

Occupational Radiation Protection

- IAEA Training Course on Assessment of Occupational Exposure due to Intakes of Radionuclides (E,S, R)*
- IAEA Training Course on Assessment of Occupational Exposure due to External Radiation Sources (E,R)*
- IAEA Training Course on Occupational Radiation Protection (E,S) *
- Radiation Protection and the Management of Radioactive Waste in the Oil and Gas Industry (E)
- IAEA Training Course on Neutron Dosimetry (E) *
- IAEA Training Course on Workplace Monitoring (E,S) *

Quality Management

- Quality Management Systems for Technical Services in Radiation Safety (E,S) *
Medical Applications

• IAEA Training Course on Radiation Protection in Diagnostic and Interventional Radiology (E,A)*
• IAEA Training Course on Radiation Protection in Nuclear Medicine (E,S)*
• IAEA Training Material on Radiation Protection in Radiotherapy
• IAEA Training Material on Radiation Protection in Cardiology
• IAEA Training Material on Prevention of Accidental Exposures in Radiotherapy
Radiation Protection Officer Training

Core syllabus

Supplementary modules

1 Industrial radiography
2 Industrial irradiator facilities
3 Medical applications in radiology, radiotherapy and brachytherapy
4 Nuclear medicine
5 Mining and milling
6 Research reactor/accelerators
7 General use of unsealed sources
7 Nuclear fuel cycle

Experience → On the job training

Specific training course

Specific training courses for the relevant practices

or

IAEA specialized training courses

Assessment of competence → RPO
Strategy for the years 2011-2020

• Development and Implementation of national strategies for building competence,

• Competence building tools,

• Effective use of RTCs.
IMPLEMENTATION OF THE STRATEGY

National strategy for building competence in radiation protection

1. Collection of national data and analysis of education & training needs

2. Design of national strategy tailored to meet national needs

3. Implementation of national strategy

4. Evaluation and feedback

National competence in radiation safety
Some numbers...

- E&T activities in the Division of Radiation, Transport and Waste Safety

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Training packages for specialized events

Developed by the Division of Radiation, Transport and Waste Safety

Occupational Radiation Protection

- IAEA Training on Assessment of Occupational Exposure due to Intakes of Radionuclides
- IAEA Training on Assessment of Occupational Exposure due to External Radiation Sources
- IAEA Training on Occupational Radiation Protection
- Radiation Protection and the Management of Radioactive Waste in the Oil and Gas Industry
- IAEA Training on Neutron Monitoring
- IAEA Training on Work Place Monitoring

Protection of Patients

- IAEA Training on Radiation Protection in Diagnostic and Interventional Radiology
- IAEA Training on Radiation Protection in Nuclear Medicine
Specialized training: example of web resources for RPOP

The training material on this site is available for free downloading (subject to conditions specified in 'Intended use' and 'Disclaimer' below), and are on the topics of Radiation Protection in:

English
- Diagnostic and Interventional Radiology
- Radiotherapy
- Nuclear Medicine
- Prevention of Accidental Exposure in Radiotherapy
- Cardiology
- PET/CT
Outcomes of the E&T activities

• Strengthened radiation, transport and waste safety in MSs.
• Improved national infrastructure for E&T based on a national strategy for building competence.
• Increased applications of IAEA Safety Standards within MSs and the Regions.
• Increased number of trained and educated personnel with appropriate level of competence in radiation, transport and waste safety.
• Enhanced networking within and among MSs.
THANK YOU

http://www-ns.iaea.org/home/rtws.asp