

FORO



Foro Iberoamericano de Organismos Reguladores
Radiológicos y Nucleares
Ibero-American Forum of Radiological
and Nuclear Regulatory Agencies



About FORO



- **Founded in 1997**, FORO brings together 11 regulatory bodies from **Latin America and Iberian Peninsula** to enhance **safety and security**.

FORO's structure is based on three pillars:

- **Plenary**: composed of the heads of the regulatory bodies, with a rotating presidency.
- **Technical Executive Committee**: responsible for coordinating technical initiatives.
- **Secretariat**: currently based in **Buenos Aires, Argentina**.

The Technical Programme

Strengths and harmonizes regulatory capacity in Ibero-America, funded voluntarily, and executed by **expert working groups**.

Thematic areas



Projects (see FORO homepage)

 FORO Activity Knowledge		
Title	Thematic area	State
Characterization of Industries and Activities Involving NORM: A Focus on the Oil, Gas and Mining Industries	AT03 - Protección radiológica del público y medio ambiente	Running
Development of a safety guideline to establish licensing criteria and inspection requirements for proton therapy facilities.	AT01 - Protección radiológica ocupacional	Running
Probabilistic safety analysis of radiotherapy treatments with linear accelerator (APS Project)	AT02 - Protección radiológica en aplicaciones médicas	Culminated
Application of the risk matrix approach to radiotherapy (Matrices Project)	AT02 - Protección radiológica en aplicaciones médicas	Culminated
Development of a tool for the application of the risk matrix method to radiotherapy (SEVRRRA Project).	AT02 - Protección radiológica en aplicaciones médicas	Culminated
Self-evaluation of the regulatory program for radiation protection in medical exposures (Patient Protection Project).	AT02 - Protección radiológica en aplicaciones médicas	Culminated
Regulatory practices in aging and life extension of nuclear power plants (Project PREEV)	AT09 - Seguridad nuclear	Culminated
Strategy for the prevention, detection and response to the inadvertent presence of radioactive material in metal recycling and other associated processes (Sources Project).	AT06 - Control de fuentes	Culminated
Establishment of a common methodological guide for the analysis of radiological emergencies and identification of lessons learned (Emergencies Project).	AT04 - Preparación y respuesta a emergencias	Running
Establishment of licensing criteria and inspection requirements for facilities with cyclotrons for the production of radioisotopes used in medical applications and research (Cyclotrons Project).	AT01 - Protección radiológica ocupacional	Culminated
Safety culture in organizations, facilities and activities with ionizing radiation sources (Safety Culture Project).	AT12 - Factores humanos y organizacionales	Culminated
Guide for the elaboration of a program for the creation and development of nuclear reactor regulator competencies (CREAN Project).	AT09 - Seguridad nuclear	Culminated
Application of the risk matrix method in industrial radiography (SEVRRRA Industry Project)	AT01 - Protección radiológica ocupacional	Culminated
Practical guide for the implementation of the waiver in radioactive facilities (Waiver Project).	AT08 - Gestión de residuos	Culminated
Resilience of nuclear power plants in FORO member countries (UN Resilience Project)	AT09 - Seguridad nuclear	Culminated
Competencies of regulatory agency personnel in medical and industrial radiological applications (CREAR Project).	AT12 - Factores humanos y organizacionales	Culminated
Pilot application of the FORO Guide's safety culture assessment methodology to an industrial gammagraphy company (Gammagraphy Project).	AT12 - Factores humanos y organizacionales	Running
Extension of the application of the SEVRRRA risk matrix methodology to new radiotherapy techniques (SEVRRRA II Project).	AT02 - Protección radiológica en aplicaciones médicas	Culminated



Impact of FORO projects on the implementation of GSR Part 3 requirements

Safety Culture in Organizations, Facilities and Activities with Ionizing Radiation Sources (Project Safety Culture)

Support for the implementation of GSR Part 3 in the themes:

- Requirement 5: management for protection and safety, including safety culture and human factors;
- Regulatory oversight – to ensure that safety culture is maintained.

Medical Exposure

- **Development of a safety guideline to establish licensing criteria and inspection requirements for proton therapy facilities**
- **Probabilistic safety analysis of radiotherapy treatments with linear accelerator (APS Project)**
- **Application of the risk matrix approach to radiotherapy (Matrices Project)**
- **Development of a tool for the application of the risk matrix method to radiotherapy (SEVRRRA Project)**



Support for the implementation of GSR Part 3 in the themes:

- Government/regulatory responsibilities in medical exposures.
- Optimization of protection & safety in medical exposures (justification, limiting doses) for patients and staff.
- Requirements for Safety Assessment, records, learning from incidents.
- Monitoring and feedback of operating experience.

Establishment of a guide for radiological emergency analysis / lessons learned (Project Emergencies)

Support for the implementation of GSR Part 3 in the themes:

- Emergency exposure situations requirements.
- Requirement for preparedness & response, transition from emergency to existing exposure situation.

Establishment of licensing criteria & inspection requirements for cyclotron facilities producing radioisotopes (Project Cyclotrons)

Support for the implementation of GSR Part 3 in the themes :

- Authorization/notification in planned exposure situations.
- Regulatory responsibilities, safety assessment, dose limits, worker and public exposure.

Capacity Building

Guide for the development of a regulatory competence program for nuclear reactor regulators (Project CREAN)

Competencies of regulatory agency personnel in medical and industrial radiological applications (CREAR Project).

Support for the implementation of GSR Part 3 in the themes :

- Regulatory body responsibilities including competence, training, oversight;
- Management system and human factors, safety culture.

TECDOC Title & Details	Year
TECDOC-1995 – <i>Safety Culture in Organizations Handling Ionizing Radiation</i> – Guidance for developing a robust safety culture within organizations using ionizing sources.	2022
TECDOC-2005 – <i>Regulatory Competencies for Medical and Industrial Radiological Applications</i> – A structured framework for regulators’ competency development.	2022
TECDOC-1794 – <i>Competency-Building Program for Nuclear Reactor Regulators</i> – Guidelines to design a training and development programme for reactor regulators.	2016
TECDOC-1710 – <i>Self-Assessment of Regulatory Program for Medical Radiological Protection</i> – Tool for regulators to audit and improve medical exposure oversight.	2013
FORO/IAEA-2010 – <i>Regulatory Practices on Ageing Management and Long-Term Operation of Nuclear Power Plants in Ibero-America</i> – Regional guidance on ageing management and long-term safety oversight of nuclear plants.	2014
TECDOC-2069 – <i>Regulatory Processes for Cyclotron-based Radiopharmaceutical Facilities</i> – The latest TECDOC addressing licensing and inspection of cyclotron facilities.	2024

Recent and Ongoing Projects

- Safety culture in industrial gamma radiography.
- Inspection processes and ageing management in research reactors.
- Physical protection in transport of radioactive materials.
- Regulatory safety guide for proton therapy facilities.
- Characterization of NORM industries.

Achievements

- Delivered technical outputs, shared via **FORO RED platform**.
- Contributions published in **FORO–IAEA TECDOCs**, incorporated into **IAEA Safety Guides** and regional regulatory training.
- **FORO projects help countries apply GSR Part 3 by improving regulation, safety culture, and protection of people and the environment.**

Recognition

- The programme's value has been acknowledged by: **IAEA, SEGIB, ICRP, IRPA, PAHO, WHO**, among others.

Thanks!



ARGENTINA



Autoridad Reguladora Nuclear

BRASIL



Autoridade Nacional de Segurança Nuclear

CHILE



Comisión Chilena de Energía Nuclear

COLOMBIA



Ministerio de Minas y Energía

CUBA



Dirección de Seguridad Nuclear

ESPAÑA



Consejo de Seguridad Nuclear

MÉXICO



Comisión Nacional de Seguridad Nuclear y Salvaguardias

PARAGUAY



Autoridad Reguladora Radiológica y Nuclear

PERÚ



Instituto Peruano de Energía Nuclear

PORTUGAL



Agencia Portuguesa de Ambiente

URUGUAY



Autoridad Reguladora Nacional en Radioprotección