



International Atomic Energy Agency

IAEA Activities on Control of Sources

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“ALARA in Safety and Security of Radiation Sources”
Vienna, Austria – 21st - 23rd October 2009**

Contents

- **IAEA functions for safety and security**
- **IAEA Safety Standards and guides**
- **IAEA Security documents**
- **IAEA Services and Tools**



Introduction

IAEA SAFETY FUNCTIONS

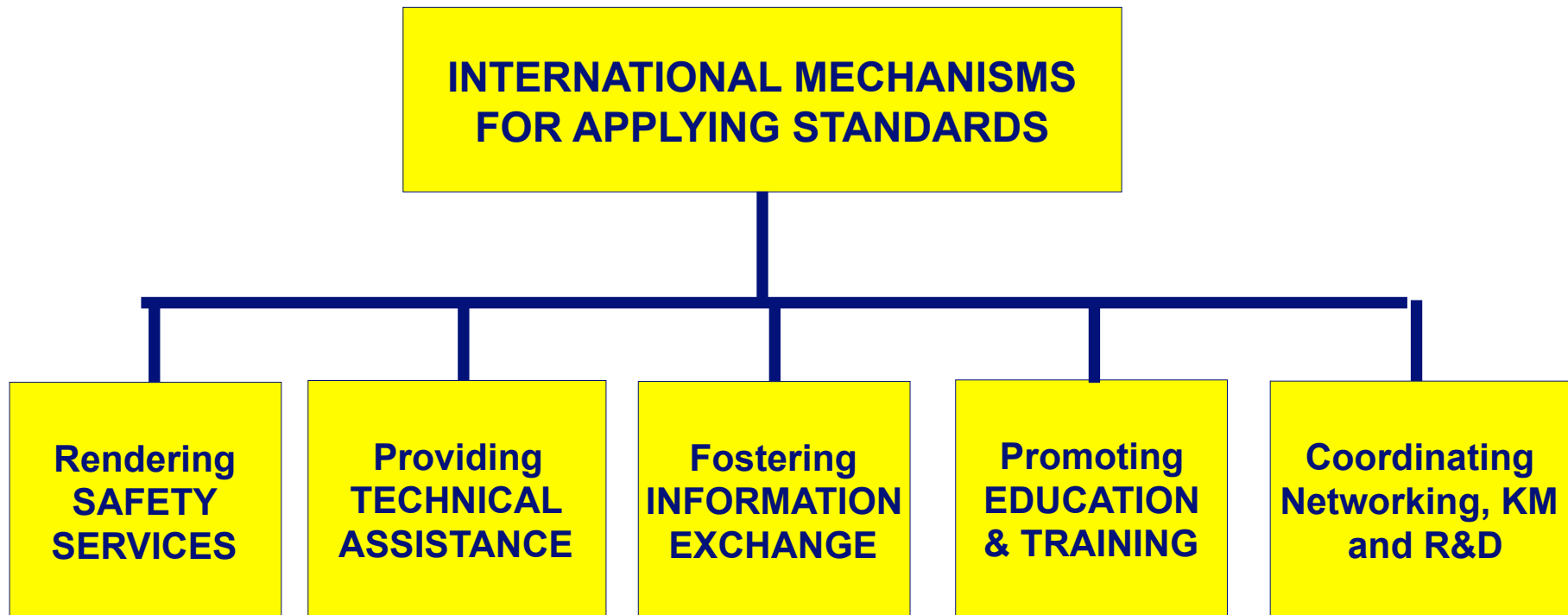
to facilitate and
service international
conventions and
other undertakings

to establish
international
safety standards

to provide for
the application of
international standards



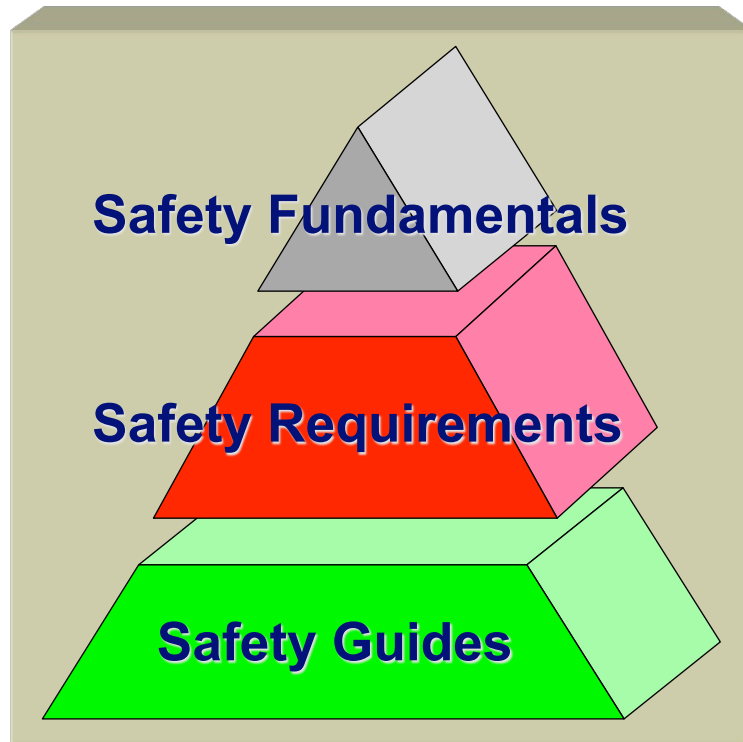
Introduction



Structure of Safety and Security Documents

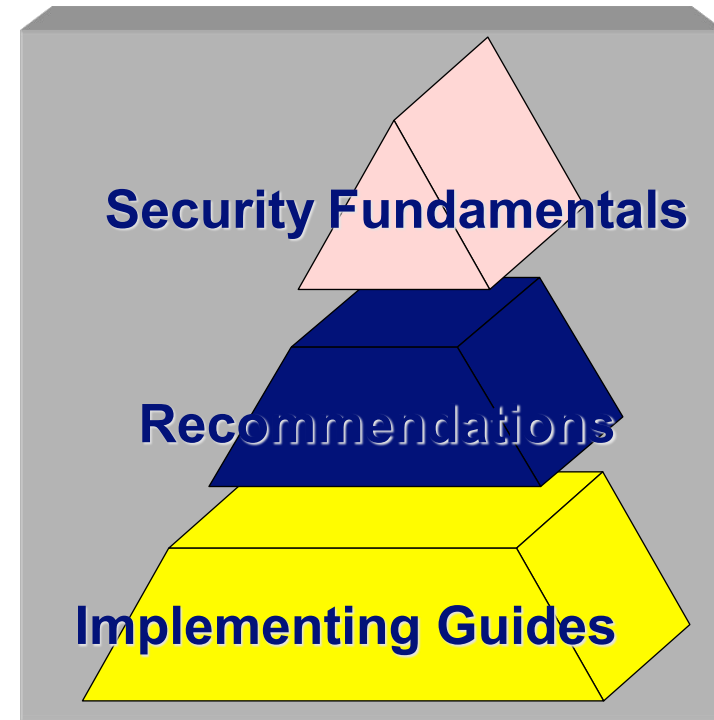
Global reference point for high level of nuclear safety and security

SAFETY STANDARDS



**Mature stage through
transparent process**

NUCLEAR SECURITY SERIES



Initial stage of development

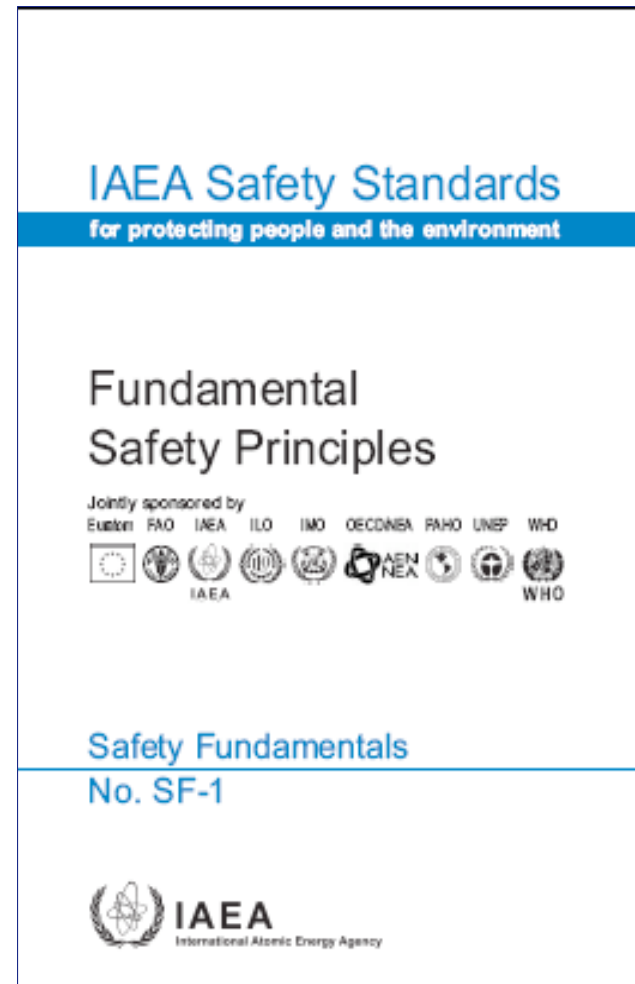


***Relevant International
Standards and other
IAEA publications
for the safe management
of sources***



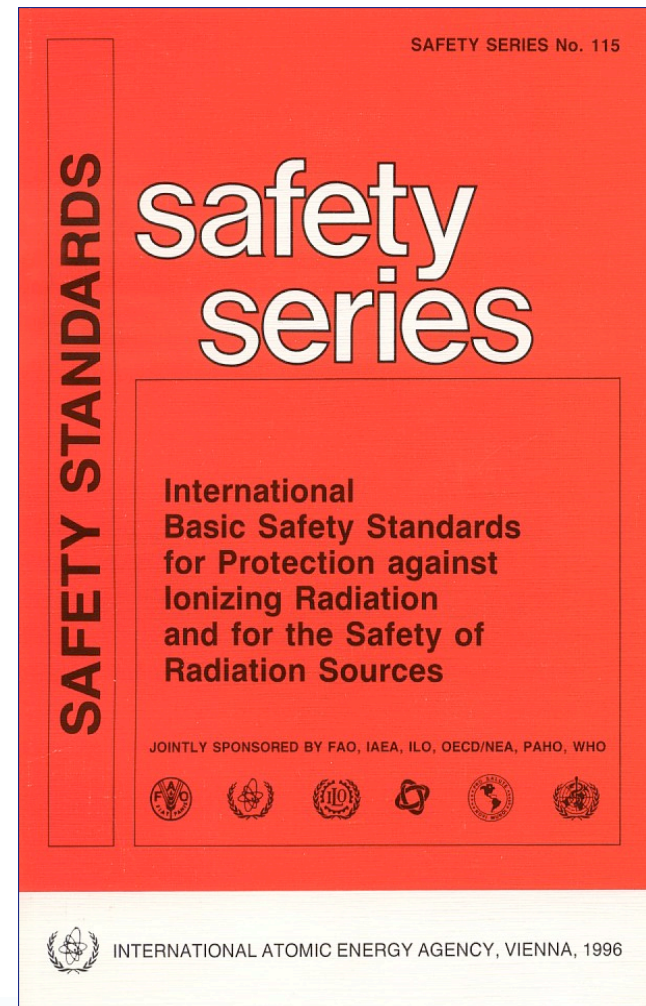
Fundamental Safety Principles

- Published in November 2006
- Jointly sponsored by several international organizations
- 10 Fundamental Safety Principles for protection against exposure to ionizing radiation
- Includes the three radiation protection principles
- Principle 2: “An effective legal and governmental framework for safety, including an independent regulatory body, must be established and sustained.”



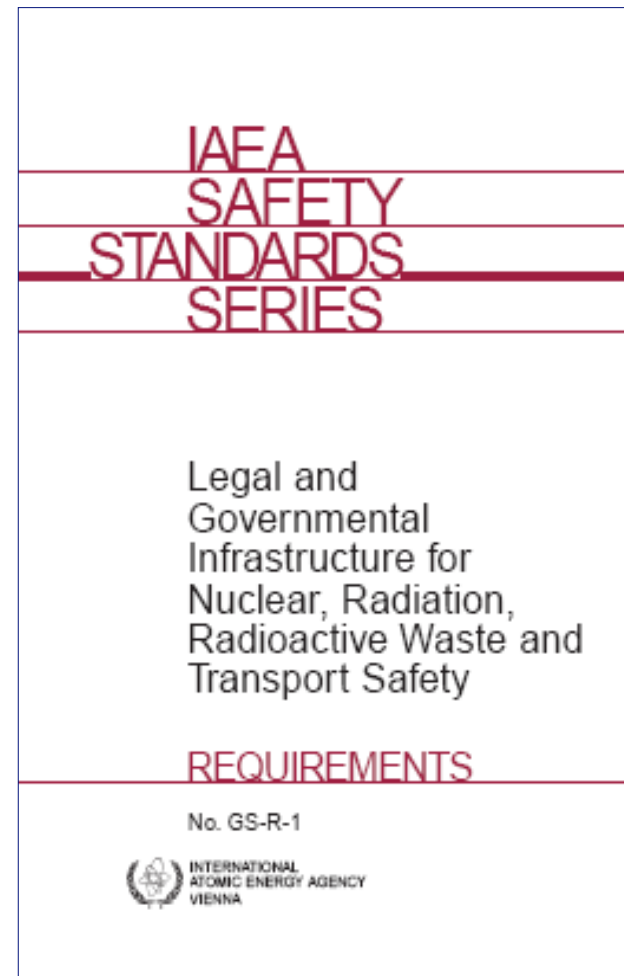
Safety Series No. 115 (BSS)

- A key international standard since 1960 co-sponsored by all relevant international organizations
- Revision in process
- Comprehensive set of requirements covering all thematic areas of radiation safety
- Includes Safety and security of sources
- **Governmental Regulation, National Infrastructures, Regulatory Authority**



Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety (GS-R-1)

- Specific basis for the national regulatory framework
- Revision in process
- Comprehensive set of requirements covering all aspects of the regulatory framework
- **Governmental responsibilities**
- **Responsibilities, functions, organization and activities of the regulatory body**



Code of Conduct on the Safety and Security of Radioactive Sources

- Published in 2004
- Primary audience: National Governments and Regulatory Bodies
- Set of objectives and principles for the regulatory control of radioactive sources
- Associated guidance for the import/export of radioactive sources
- **National register of sources, source categorization, National Strategy for disused sources, orphan sources...**



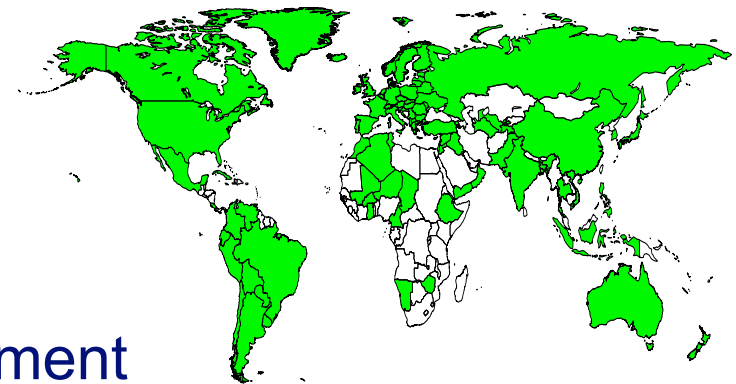
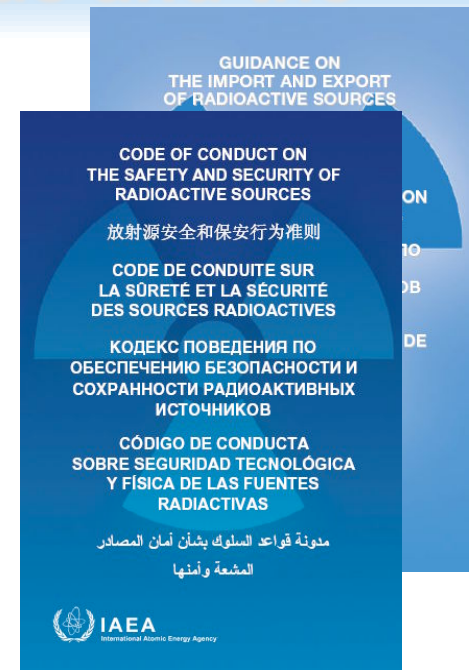
State Political Commitment to the Code and the Guidance

As of 29 June 2009, **95 States** have written to the Director General to express their support to the Code

53 of those States have additionally notified the Director General of their intention to act in a harmonized manner in accordance with the Code's supplementary Guidance

88 States have sent Point of Contact Details to IAEA

42 States have returned the self-assessment questionnaire (annex I of the Guidance)



Code of Conduct Web page

The screenshot shows the IAEA website's navigation and content for the Code of Conduct. The header includes the IAEA logo, search bar, and navigation tabs like 'About IAEA', 'Our Work', 'News Centre', 'Publications', and 'Data Centre'. The breadcrumb trail reads: 'You are in : Home » Our Work » Nuclear Safety & Security » Technical areas » Source Safety and Security » Code of Conduct'. The main content area is titled 'Code of Conduct' and contains several sections: 'List of States expressing support', 'Import/export contact points', 'Meetings reports', and 'Forms and SAQ'. A 'Resources' sidebar on the right lists various documents, including 'The Code of Conduct (pdf) 2MB', 'States expressing support for the Code of Conduct and the Import/Export Guidance', 'Map of States supporting the Code', 'Map of States supporting Import/Export guidance', 'Import/Export contact points (pdf)', 'Action Plan on the Safety and Security of Radioactive Sources (pdf)', 'Findings from the Bordeaux conference, France, 2005', 'Follow up on Conference on Safety and Security of Sources, Vienna, 2003', and 'Members access'. Red arrows point from the yellow callout boxes to the corresponding sections on the page. Orange circles highlight the 'Resources' sidebar items.

List of States expressing support

Import/export contact points

Meetings reports

Forms and SAQ

Resources

- The Code of Conduct (pdf) 2MB
- States expressing support for the Code of Conduct and the Import/Export Guidance
- Map of States supporting the Code
- Map of States supporting Import/Export guidance
- Import/Export contact points (pdf)
- Action Plan on the Safety and Security of Radioactive Sources (pdf)
- Findings from the Bordeaux conference, France, 2005
- Follow up on Conference on Safety and Security of Sources, Vienna, 2003
- Members access

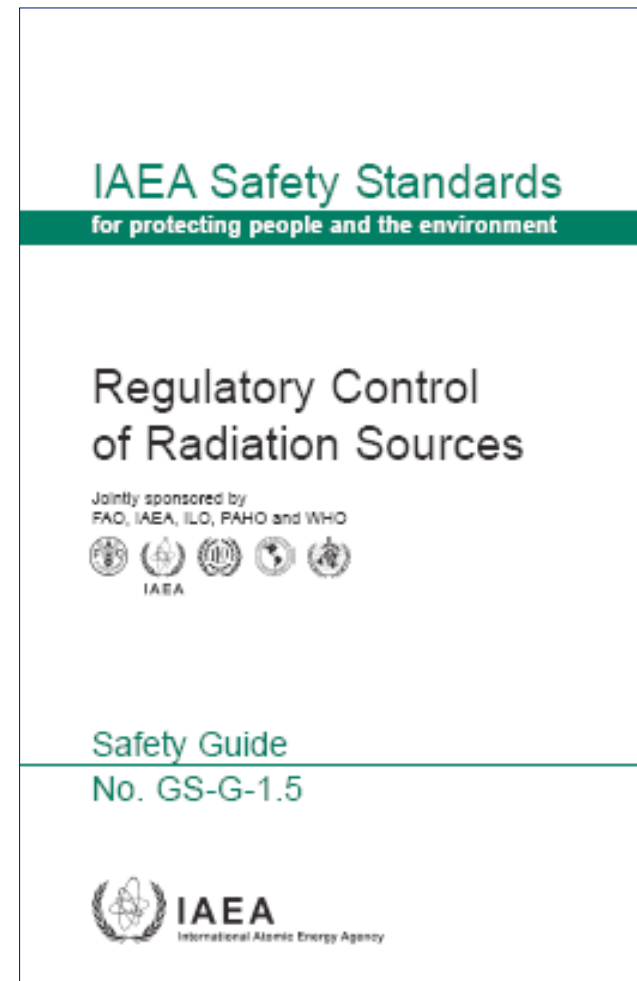
Formalized process for periodic exchange of information and lessons learned:

Next Meeting 17-21 May 2010

www-ns.iaea.org/tech-areas/radiation-safety/code-of-conduct.htm

Regulatory Control of Radiation Sources (GS-G-1.5)

- Legal Framework
- Principal functions and activities of the Regulatory body
- Organization and staffing of the Regulatory Body
- Development of Regulations and Guides, Notification and Authorization, Inspection, Enforcement, Investigation of Accidents, Dissemination of Information, Quality Management



Other Relevant Safety Guides

- **RS-G-1.7 Application of the Concepts of Exclusion, Exemption and Clearance**
- **RS-G-1.9 Categorization of Radioactive Sources**
- **RS-G-1.10 Safety of Radiation Generators and Sealed Radioactive Sources**
- **Drafts on:**
 - **Methodology for a National Strategy for Regaining Control over Orphan Sources**
 - **industrial radiography**
 - **Irradiators**
 - **industrial gauges, well logging**
 - **Isotope production facilities**
 - **Orphan Sources and Radioactively Contaminated Material in the Metal Recycling Industry**

IAEA Safety Standards
for protecting people and the environment

Safety of Radiation
Generators and Sealed
Radioactive Sources

Safety Guide
No. RS-G-1.10



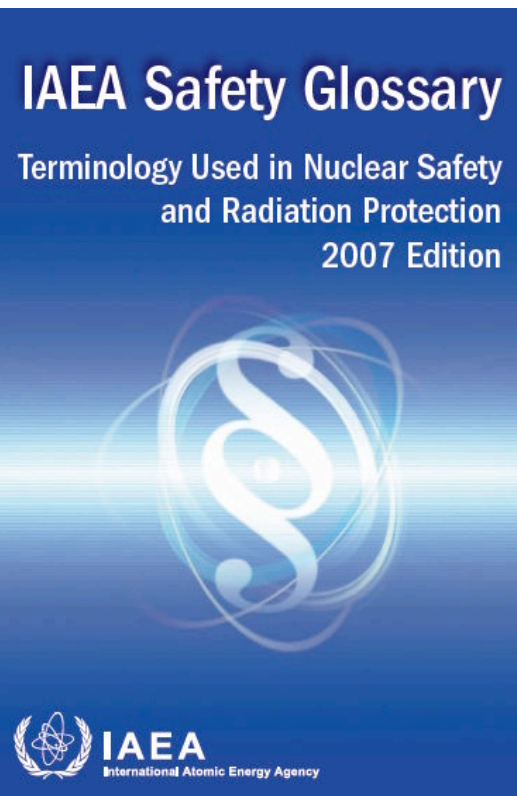
Other Relevant Safety Reports

- **Safety Report No. 20 Training in radiation protection and the safe use of radiation sources**
- **Safety Reports No. 38, No. 39, No. 40, No. 47: Applying radiation safety standards**
 - in radiotherapy
 - in diagnostic radiology and interventional procedures using X rays
 - in nuclear medicine
 - in the design of radiotherapy facilities



Additional Guidance on Regulatory Activities

- **IAEA-TECDOC-1525 Notification and Authorization for the Use of Radiation Sources**
- **IAEA-TECDOC-1526 Inspection of Radiation Sources and Regulatory Enforcement**
- **IAEA Safety Glossary**



IAEA Security documents

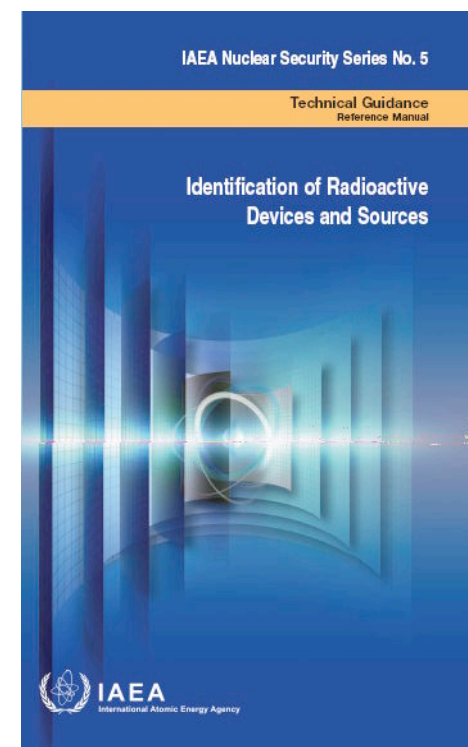


Nuclear Security Series – Published as Technical Guidance

#5: Identification of Radioactive Sources and Devices

Aids non-specialist individuals and organizations in initial identification of radioactive sources, devices and packages that they may come into contact with by accident or in the normal course of their work

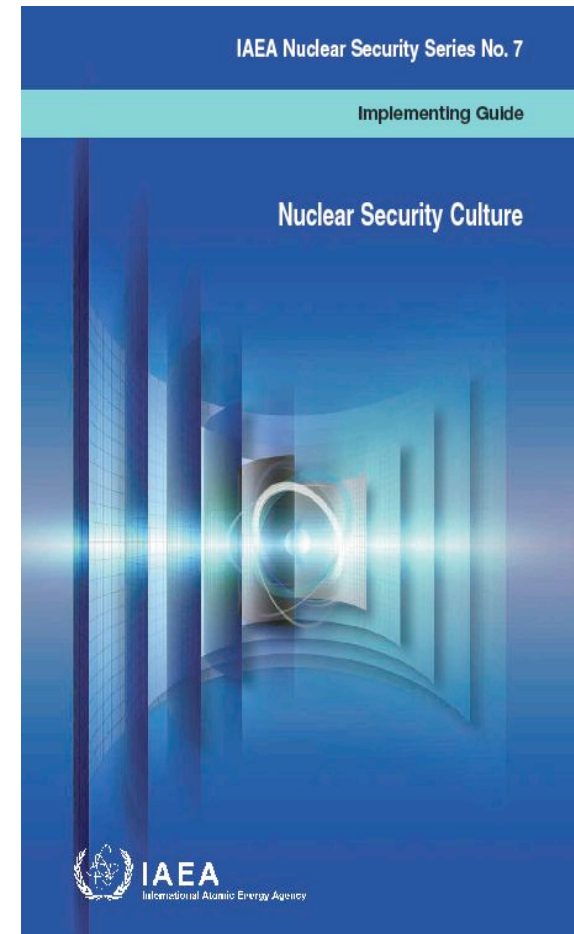
**Hard Copy of the International Catalogue
of Sealed Radioactive Sources
(ICSRS.IAEA.org)**



Nuclear Security Series – Published as Technical Guidance

#7: Nuclear Security Culture

Explains the basic concepts and elements of a nuclear security culture and how they relate to arrangements and policies for other aspect of nuclear security. It provides an overview of the attributes of nuclear security culture, emphasizing that nuclear security is ultimately dependent on individuals: policy makers, regulators, managers, individual employees and – to a certain extent – members of the general public.



Nuclear Security Series – Published as Technical Guidance

#9: Security in the Transport of Radioactive Material

provides States with guidance in implementing , maintaining or enhancing a nuclear security regime to protect radioactive material (including nuclear material) while in transport against theft, sabotage or other malicious acts that could, if successful, have unacceptable radiological consequences.

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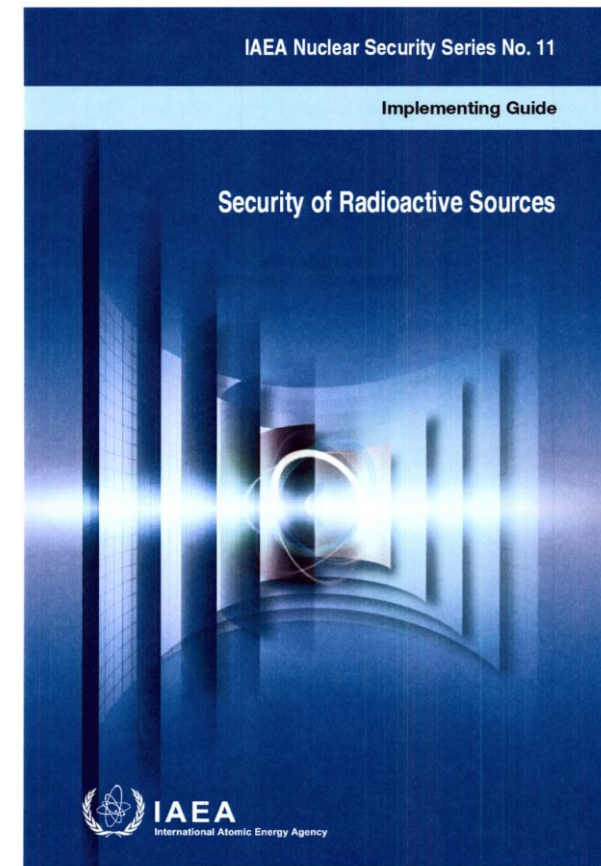


Nuclear Security Series – Published as Technical Guidance

#11: Security of Radioactive Sources

Based on extensive input from technical and legal experts, this implementation guide sets forth guidance on the security of sources and will serve as a useful tool for legislators and regulators, physical protection specialists and facility and transport operators, as well as for law enforcement officers.

(based on TECDOC 1355)



Nuclear Security Series

Currently under development

Nuclear Security Fundamentals (objectives and essential elements of nuclear security)

Recommendations Documents:

- Security of Radioactive Material and Associated Facilities
- Detection of and Response to criminal or unauthorized acts involving nuclear and other radioactive material out of regulatory control



IAEA Services and Tools



Regulatory Infrastructure for the control of radiation sources

- **Appraisal and advisory services to MS for strengthening the national regulatory infrastructure for radiation safety and for the security of radioactive sources**
 - ✓ **Integrated Regulatory Review Service (IRRS)**
 - ✓ **Ad-hoc advisory missions upon request**

- **Self Assessment of national regulatory infrastructure for safety**
 - ✓ **IAEA methodology developed**
 - ✓ **Self Assessment Tool SAT developed**
 - ✓ **Regional projects for conducting self assessment at the national level and share experience and results at the regional level**

Regulatory Infrastructure for the control of radiation sources (Cont'd)

- **The Regulatory Authority information System (RAIS):**
 - ✓ **Information management tool related to the regulatory control of radiation sources**
 - ✓ **Helps managing daily regulatory activities carried out by Regulatory Bodies**
 - ✓ **RAIS V 3.0 is in use, to varying degrees, in more than 90 countries.**
 - ✓ **Web based version just released to facilitate exchange of information between stakeholders, in particular for import and export of sources (Regulator / Customs)**



Regulatory Infrastructure for the control of radiation sources (Cont'd)

- **Training Course Material on Radiation Safety for Regulators, Lawyers, Custom Officers**
 - ✓ **National and Regional Training Courses organized through various AIEA mechanisms**

- **Networking of Regulators in charge of regulatory control of radioactive sources is being promoted through many international and regional initiatives.**
 - ✓ **Regional networks of regulators, newly established Forum in Africa - FORBIA**
 - ✓ **REGNET, harmonization of existing initiatives, integration of Safety and Security**



Training activities on security

International Seminar on Nuclear Security	Security of radioactive Sources
Nuclear Security, Safety and Safeguards	Security during Transport of Radioactive Material
Combating Illicit Trafficking in Nuclear and Radioactive Material	Radiation detection Technique for Front Line Officers
Foundations of Physical Protection of Nuclear Material and Facilities	Security Culture
Physical Protection Inspections at Nuclear Facilities	Nuclear Material and Accounting and Control at Facilities



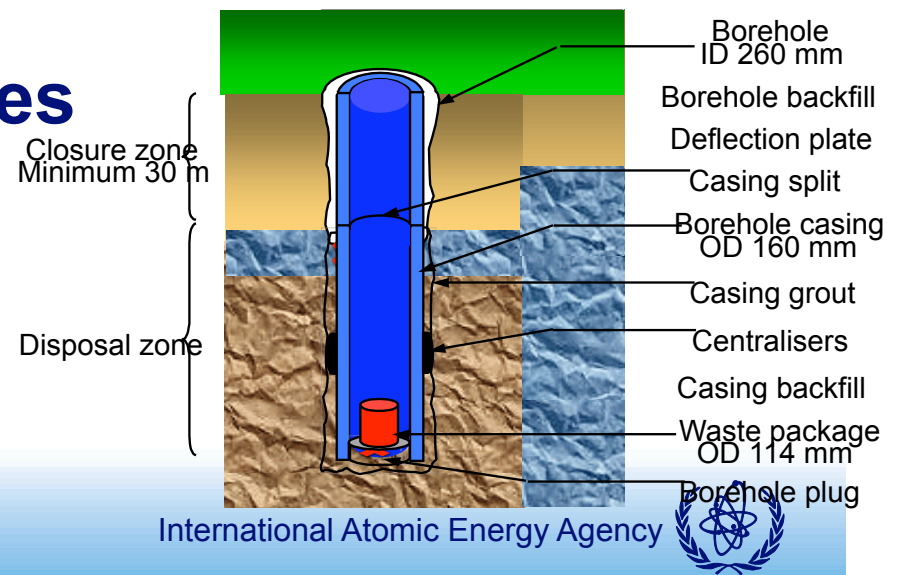
Procurement of equipments

- **Radiation Detection Equipments for inspectors**
- **Portal monitors at borders**
- **Physical protection upgrades of facilities holding high activity sources**



Management of disused radioactive sources

- Projects run by the Division of Waste Technology, with funding from safety and security projects
- Assistance to Member States for
 - Source repatriation to the country of origin
 - Dismantling of equipments, source transport and storage
 - Long term storage facilities
 - Disposal routes



... Thank you for your attention



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