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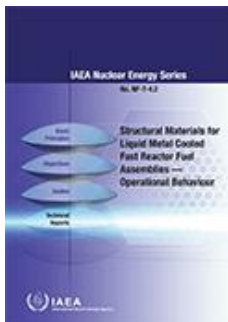
Luísa Oliveira - Núcleo de Documentação e Informação

*Nota: Também disponível para consulta na Biblioteca em DVD.*

## Publicações Oferecidas



### IAEA Nuclear Energy Series



### Structural Materials for Liquid Metal Cooled Fast Reactor Fuel Assemblies—Operational Behaviour

*IAEA Nuclear Energy Series NF-T-4.3*

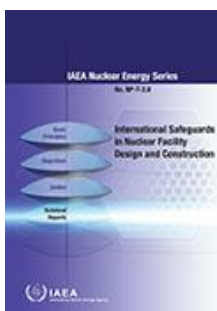
Subject Classification: 0802-Fuel fabrication and performance  
STI/PUB/1548 (ISBN:978-92-0-127510-3) 87 pp.; 70 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1548\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1548_web.pdf)

#### DESCRIPTION

This publication summarizes the findings of several IAEA meetings on fast reactor materials and provides a review of historically available and new information on properties, fabrication technologies and irradiation behaviour of stainless steel structural materials for liquid metal cooled fast reactor (LMFR) fuel assemblies. It identifies different varieties of austenitic, ferritic–martensitic, oxide dispersion strengthened (ODS) steels and nickel-base alloys used or planned to be used as fuel cladding and structural components of fast reactor fuel assemblies, describes manufacturing processes of LMFR fuel cladding tubes and in-core components, and overviews the operational behaviour of these materials in fast reactors. Particular focus is given to ODS steels as the promising path forward to achieving higher fuel burnup in fast reactors.



### International Safeguards in Nuclear Facility Design and Construction

*IAEA Nuclear Energy Series NP-T-2.8*

Subject Classification: 0800-Nuclear fuel cycle and waste management  
STI/PUB/1600 (ISBN:978-92-0-140610-1) 22 pp.

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1600\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1600_web.pdf)

#### DESCRIPTION

DESCRIPTION This IAEA publication provides guidance on the inclusion of safeguards considerations in nuclear facility design and construction. This first volume introduces the basic principles of Safeguards by design and discusses the goals, costs and rewards, and places the information into the context of nuclear facility design and construction. Benefits and opportunities for all stakeholders are emphasized. The guidance is aimed at enhancing the understanding of nuclear facility vendors and designers regarding the safeguards obligations of both States and the IAEA, at improving the cooperation between all stakeholders in safeguards implementation, and at minimizing the cost of implementation for all stakeholders.

## IAEA Safety Standards Series

IAEA Safety Standards  
for protecting people and the environment

Regulations for the  
Safe Transport of  
Radioactive Material  
2012 Edition

Specific Safety Requirements  
No. SSR-6



## Regulations for the Safe Transport of Radioactive Material - 2012 Edition

### Specific Safety Requirements

IAEA Safety Standards Series SSR-6

Subject Classification: 0606-Transport of radioactive material  
STI/PUB/1570(ISBN:978-92-0-133310-0)168 pp.;7 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1570\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1570_web.pdf)

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#### DESCRIPTION

This publication establishes the regulations that apply to the transport of radioactive material by all modes of transport on land, water or in the air, including transport that is incidental to the use of the radioactive material. The objective and scope of the regulations are described in detail as well as the range of their application. The publication provides requirements useful to governments, regulators, operators of nuclear facilities, carriers, users of radiation sources and cargo handling personnel. Contents: 1. Introduction; 2. Definitions; 3. General provisions; 4. Activity limits and classification; 5. Requirements and controls for transport; 6. Requirements for radioactive materials and for packagings and packages; 7. Test procedures; 8. Approval and administrative requirements; Annex I: Summary of approval and prior notification requirements; Annex II: Conversion factors and prefixes; Annex III: Summary of consignments requiring exclusive use. (Formerly known as TS-R-1)

Normes de sûreté de l'AIEA  
pour la protection des personnes et de l'environnement

Sûreté radiologique  
en radiographie  
industrielle

Guide de sûreté thématique  
N° SSG-11



## Radiation Safety in Industrial Radiography Specific Safety Guide — French Edition

Collection normes de sûreté de l'AIEA SSG-11

STI/PUB/1466(ISBN:978-92-0-236610-7)112 pp.;2 figures;

**Language: French**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1466f\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1466f_web.pdf)

## Periodic Safety Review for Nuclear Power Plants

IAEA Safety Standards  
for protecting people and the environment

Periodic Safety  
Review for  
Nuclear Power Plants

Specific Safety Guide  
No. SSG-25



*IAEA Safety Standards Series SSG-25*

Subject Classification: 0603-Nuclear power plants  
STI/PUB/1588(ISBN:978-92-0-137410-3)106 pp.;  
**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1588\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1588_web.pdf)

### DESCRIPTION

This Safety Guide provides recommendations and guidance on conducting periodic safety review (PSR) of an existing nuclear power plant. PSR is a comprehensive safety review of all important aspects of safety, carried out at regular intervals, typically every ten years. In addition, PSR may be used in support of the decision making process for licence renewal or long term operation, or for restart of a nuclear power plant following a prolonged shutdown. The review process described in this Safety Guide is valid for nuclear power plants of any age and may have a wider applicability, for example to research reactors and radioactive waste management facilities, by means of a graded approach. Although PSR may not be an appropriate means for identifying safety issues in the decommissioning phase, the documentation resulting from PSR of an operating nuclear power plant will be an important input when planning decommissioning.

## IAEA International Law Series

The 1988 Joint Protocol Relating  
to the Application of the Vienna  
Convention and the Paris Convention –  
Explanatory Text

IAEA International Law Series No. 5



## The 1988 Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention - Explanatory Text

*IAEA International Law Series 5*

Subject Classification: 1100-Legal matters  
STI/PUB/1593(ISBN:978-92-0-139410-1)37 pp.;  
**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1593\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1593_web.pdf)

### DESCRIPTION

This publication complements IAEA International Law Series No.3 and reproduces the explanatory text on the 1988 Joint Protocol Relating to the Application of the Vienna Convention on Civil Liability for Nuclear Damage and the Paris Convention on Third Party Liability in the Field of Nuclear Energy. Finalized by the International Expert Group on Nuclear Liability (INLEX), this text constitutes a comprehensive study and authoritative interpretation of that instrument.

**IAEA Nuclear Security Series**

**Preventive and Protective Measures Against Insider Threats – French Edition**

*IAEA Nuclear Security Series 8*

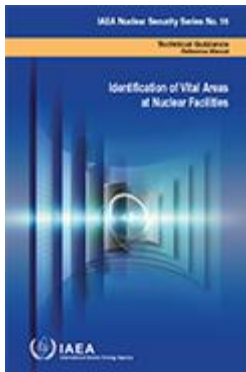
STI/PUB/1359(ISBN:978-92-0-236710-4)29 pp.;

**Language: French**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1359f\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1359f_web.pdf)

**DESCRIPTION**

DESCRIPTION This Implementing Guide presents a comprehensive methodology for the development of preventive and protective measures against insider threats to nuclear facilities and nuclear material transport operations of all types. Institutional insiders who are privy to the inner workings of security systems present a unique challenge to the establishment of effective control systems for nuclear material. They generally possess access rights which, together with their authority and knowledge of facilities, grant them far greater opportunity than any outsider to bypass dedicated physical protection elements or other provisions such as safety systems and operating procedures. Furthermore, insiders, as trusted persons, are capable of methods of defeat that are not available to outsiders. This publication provides guidance and measures for reducing these and other risks posed by insiders.


**Identification of Vital Areas at Nuclear Facilities**

*IAEA Nuclear Security Series 16*

Subject Classification: 0600-Nuclear and Radiological Safety

STI/PUB/1505(ISBN:978-92-0-114410-2)37 pp.;2 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1505\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1505_web.pdf)

**DESCRIPTION**

This publication provides detailed guidance with regard to the identification of vital areas at nuclear facilities. It presents a structured approach to identifying the areas that contain equipment, systems and components to be protected against sabotage. The process for selection of a specific set of vital areas to be protected is based on consideration of the potential radiological consequences of sabotage, and on the design, operational and safety features of a nuclear facility. The method builds upon safety analysis to develop logic models for sabotage scenarios that could cause unacceptable radiological consequences. The sabotage actions represented in the logic models are linked to the areas from which they can be accomplished. The logic models are then analysed to determine areas that should be protected to prevent these unacceptable radiological consequences. The publication is part of a set of supporting publications in the IAEA Nuclear Security Series with the aim of assisting States in the design, implementation and evaluation of their physical protection systems for nuclear material and nuclear facilities.



## Computer Security at Nuclear Facilities French Edition

### IAEA Nuclear Security Series 17

Subject Classification: 0600-Nuclear and Radiological Safety

STI/PUB/1527(ISBN:978-92-0-237010-4)75 pp.;

**Language: French**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1527f\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1527f_web.pdf)

#### DESCRIPTION

This publication provides guidance specific to nuclear facilities on implementing a computer security programme and evaluating existing programmes. The use of computer systems to cover an increasing range of functions at nuclear facilities introduces new vulnerabilities that could seriously endanger nuclear security if not addressed in a rigorous and balanced manner. Digital systems are being increasingly introduced in safety, safety-related and security systems throughout facilities. Non-availability or malfunction of these systems can seriously impact nuclear safety and security, and potentially facilitate sabotage of the facility and/or theft of material. Computer security must, therefore, be a key component of overall facility security.

### Proceedings Series - International Atomic Energy Agency



## Human Resource Development for Introducing and Expanding Nuclear Power Programmes: Summary of an International Conference, Abu Dhabi, United Arab Emirates, 14–18 March 2010

*Proceedings Series - International Atomic Energy Agency*

Subject Classification: 0705-Qualification and training of personnel

STI/PUB/1574(ISBN:978-92-0-134410-6)54 pp.;2 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/P1574\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/P1574_web.pdf)

#### DESCRIPTION

This publication is the proceedings of an international conference on human resource development for introducing and expanding nuclear power programmes. Experts from many Member States discussed the current state of human resource development in the nuclear field and addressed their concerns about possible shortages of qualified people. The conference identified several issues for consideration by national governments, international organizations, industry and stakeholders and highlighted the importance of sharing knowledge and expertise. One of the main goals of the conference was to provide participants with practical tools that can be used at organizational, national and international levels to develop and maintain the human resources needed to support the safe and sustainable introduction and expansion of nuclear power programmes. These proceedings include a summary, the opening and closing speeches and invited papers. The publication also includes a CD-ROM which contains the contributed papers and presentations.

## IAEA Radiation Technology Reports



### Development of Novel Adsorbents and Membranes by Radiation-Induced Grafting for Selective Separation in Environmental and Industrial Applications

*IAEA Radiation Technology Reports No. 3*

Subject Classification: 0500-Industrial Applications

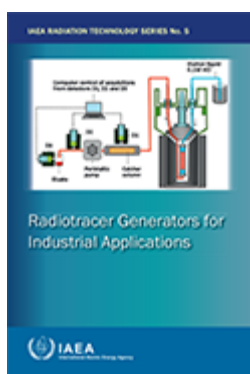
STI/PUB/1572(ISBN:978-92-0-134010-8)278 pp.;285 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/P1572\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/P1572_web.pdf)

#### DESCRIPTION

This publication summarizes the results of a coordinated research project on the development of novel adsorbents and membranes by radiation-induced grafting for selective separation purposes. Radiation-induced grafting is a technique that uses readily available, low cost synthetic and natural polymers to prepare novel materials for use where the requirements for bulk properties and surface properties cannot be readily met using a single polymeric material. The objective of the coordinated research project was to use gamma rays, electron beams and swift heavy ions to graft various monomers onto natural and synthetic polymers for the development of novel adsorbents and membranes for environmental and industrial applications. The publication provides a summary of the project results and includes reports by the participants.



### Radiotracer Generators for Industrial Applications

*IAEA Radiation Technology Series 5*

Subject Classification: 0503-Tracers

STI/PUB/1579(ISBN:978-92-0-135410-5)203 pp.;96 figures;

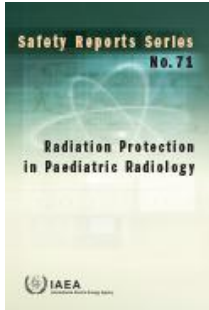
**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1579\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1579_web.pdf)

#### DESCRIPTION

This publication, which draws on the outcome of an IAEA coordinated research project and on the input from experts in the field, provides a unique source of information pertaining to the development and use of radiotracer generators and their use in troubleshooting and optimizing industrial processes. It describes the results of research undertaken in the characterization of  $^{68}\text{Ge}/^{68}\text{Ga}$ ,  $^{137}\text{Cs}/^{137\text{m}}\text{Ba}$ ,  $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$  and  $^{113}\text{Sn}/^{113\text{m}}\text{In}$  radiotracer generators and their validation in industrial process investigations. Looking at trends in the industrialization process of developing countries, there is evidence that radiotracer techniques will continue to play an important role in industry for many years to come and the findings of this research project will help Member States to make larger use of radiotracer technology for problem resolution in industry and environment.

### Safety Reports Series



## Radiation Protection in Paediatric Radiology

*Safety Reports Series 71*

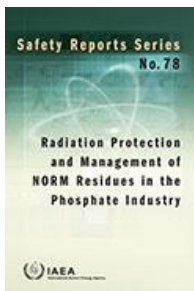
Subject Classification: 0609-Radiation protection  
STI/PUB/1543(ISBN:978-92-0-125710-9)111 pp.;2 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1543\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1543_web.pdf)

#### DESCRIPTION

This publication provides guidance to radiologists, other clinicians and radiographers/technologists involved in diagnostic procedures using ionizing radiation with children and adolescents, and should also be of value to medical physicists and regulators. It focuses on the measures necessary to provide protection from the effects of radiation using the principles established in the IAEA's International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources, and the priority accorded to the area. The emphasis throughout is on the special requirements of paediatrics.



## Radiation Protection and Management of NORM Residues in the Phosphate Industry

*Safety Reports Series 78*

Subject Classification: 0804-Waste management  
STI/PUB/1582(ISBN:978-92-0-135810-3)288 pp.;90 figures;

**Language: English**

[http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1582\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1582_web.pdf)



#### DESCRIPTION

This Safety Report is a compilation of detailed information on the processes and materials associated with the phosphate industry and on the radiological considerations that need to be taken into account by the regulatory body when determining the nature and extent of radiation protection measures. It has been developed as part of the IAEA's programme on the application of its safety standards in the field of radiation, transport and waste safety. The information provided will assist in the implementation of a graded approach to regulation, in terms of which the application of the requirements of the safety standards is commensurate with the characteristics of the practice or source and with the magnitude and likelihood of the exposures. The publication also provides information on expected radionuclide concentrations, exposure levels and the most appropriate regulatory approach in the phosphate industry and covers the mining and beneficiation of phosphate ore, phosphoric acid production, phosphogypsum, and the manufacture and use of phosphatic fertilizers among others.