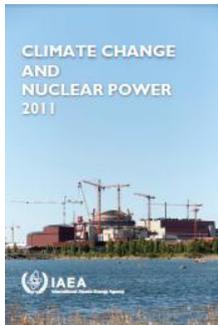


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Publicações Oferecidas



Climate Change and Nuclear Power 2011

IAEA Issues New Report on Climate Change and Nuclear Power
Report Highlights Role of Nuclear in Reducing Greenhouse Gas Emissions
<http://www.iaea.org/newscenter/news/2011/reportclimatechange.html>

http://www.iaea.org/OurWork/ST/NE/Pess/assets/11-43751_ccnp_brochure.pdf

L-12087

EN IAE.15

DESCRIPTION

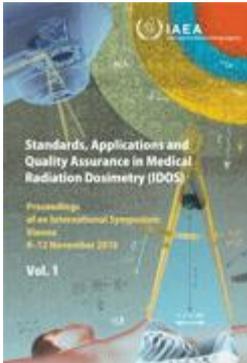
The IAEA has issued an updated report on Climate Change and Nuclear Power 2011, to coincide with the next round of global climate talks in Durban, South Africa being held under the auspices of the Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC). The IAEA is participating in the Conference and will be presenting the Report to highlight nuclear power's contribution to the global climate change agenda.

The report, which revises and updates a 2009 edition, summarizes the potential role of nuclear power in mitigating global climate change and how it contributes to other development and environmental challenges. It also examines issues such as cost, safety, waste management and non-proliferation.

"Nuclear power is good for the climate." That is the basic message that the IAEA - through the report - would like to convey in Durban, according to Mr. Hans-Holger Rogner, Section Head of the IAEA Planning and Economic Studies Section in the Department of Nuclear Energy. It is the same message that the Agency has conveyed in previous COP gatherings, as there continues to be a lack of understanding of the benefits that nuclear power can bring in mitigating climate change, Mr. Rogner added.

The 2011 report reiterates the basic benefits and competitiveness of nuclear power, particularly how it can address the twin challenges of global climate change and energy demand, with one major addition.

"We wrote the report after the Fukushima accident," clarifies Mr. Rogner, "so the implications of the effects of the accident on nuclear power are reflected in it."



Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS). Proceedings of an International Symposium, Vienna, 9-12 November 2010 (2 Volumes)

Proceedings Series - International Atomic Energy

Subject Classification: 0103-Medical physics (including dosimetry)

STI/PUB/1514 (ISBN:978-92-0-116210-6)

Date Published: 2011

L-12095

RP-D IAE.17-I

Download Volume 1 of this book, PDF, 10.20 MB:



L-12096

RP-D IAE.17-II

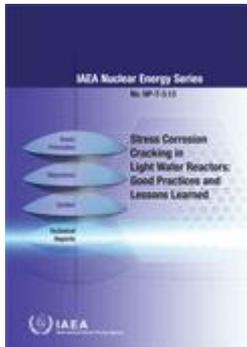
Download Volume 2 of this book, PDF, 9.664 MB:



[Download Companion CD:](#)

DESCRIPTION

This publication presents the proceedings of an international symposium on standards, applications and quality assurance in medical radiation dosimetry. It includes a selection of peer-reviewed papers that were presented at the symposium. The symposium provided a forum for physicists and scientists of medical institutions, research centres and standards laboratories to discuss advances in radiation dosimetry during the past decade and to exchange scientific knowledge. The topical sessions included all specialities in radiation medicine (radiation oncology, nuclear medicine and diagnostic radiology) and radiation protection dosimetry with a specific focus on those areas where the standardization of dosimetry has improved in recent years (brachytherapy, diagnostic radiology and nuclear medicine). One session was exclusively devoted to the challenging issues of dosimetry in small and non-standard radiotherapy beams. The publication summarizes the present status and outlines future trends in medical radiation dosimetry, and identifies possible areas for improvement.

IAEA Nuclear Energy Series


Stress Corrosion Cracking in Light Water Reactors: Good Practices and Lessons Learned

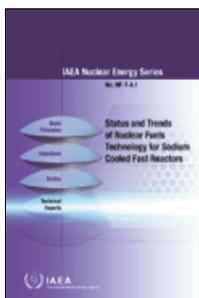
IAEA Nuclear Energy Series NP-T-3.13

Subject Classification: 0703-Reactor technology

STI/PUB/1522(ISBN:978-92-0-117210-5)100 pp.;58 figures;

DESCRIPTION

The average operating age of existing nuclear power plants (NPPs) is increasing and safety and performance of these ageing NPPs must be achieved by effectively managing material degradations within an acceptable level. Stress corrosion cracking (SCC) is one of significant material degradations for major components of both pressurized water reactors (PWRs) and boiling water reactors (BWRs) and is still an important outstanding technical issue. This publication provides general descriptions of degradation mechanisms of different types of SCC which are concerned to systems, structures and components (SSCs) in PWR and BWR. It includes examples of good practices in preventing, mitigating and repairing SCC damages and summarizes related national and international research and development programmes. Practical operational experience and practices in Member States are also presented in this overview.



Status and Trends of Nuclear Fuels Technology for Sodium Cooled Fast Reactors

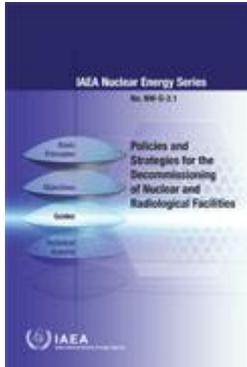
IAEA Nuclear Energy Series No. NF-T-4.1

STI/PUB/1489 (ISBN:978-92-0-112510-1) 113 pp.; 76 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1489_web.pdf

DESCRIPTION

From the inception of nuclear energy, the important role of the sodium cooled fast reactor (SFR) and its fuel cycle has been recognized for long term sustainability of nuclear power. This publication covers the status and trends of SFR fuel technology, highlighting manufacturing processes, out-of-pile properties and irradiation behaviour of mixed uranium-plutonium oxide (MOX), monocarbide (MC), mononitride (MN) and metallic U-Zr and U-Pu-Zr fuels. Minor actinide (Np, Am, Cm) bearing fuels are also covered in this publication. The information compiled in this book will be a valuable resource for materials scientists and engineers involved in fuel development for fast reactors in general and sodium cooled fast reactors in particular.



Policies and Strategies for the Decommissioning of Nuclear and Radiological Facilities

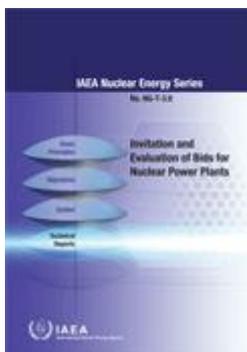
IAEA Nuclear Energy Series NW-G-2.1

STI/PUB/1525 (ISBN:978-92-0-116910-5)

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1525_web.pdf

DESCRIPTION

This publication presents the main elements of policies and strategies for decommissioning activities of nuclear and radiological facilities. It is intended to help in facilitating proper and systematic planning, and safe, timely and cost effective implementation of all decommissioning activities. The policy establishes the principles for decommissioning and the strategy contains the approaches for the implementation of the policy. The publication will be a useful guide for strategic planners, waste managers, operators of facilities under decommissioning, regulators and other stakeholders.



Invitation and Evaluation of Bids for Nuclear Power Plants

IAEA Nuclear Energy Series NG-T-3.9

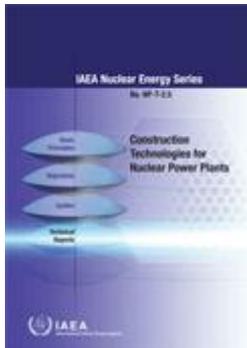
Subject Classification: 0701-Nuclear power planning and economics

STI/PUB/1536 (ISBN:978-92-0-116710-1) 78 pp.; 8 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1536_web.pdf

DESCRIPTION

This publication emphasizes the integrity and interdependence of various activities related to the bid invitation, technical and economic evaluation and contracting, it updates information included in the existing IAEA documents in order to better reflect the developments in the nuclear and energy industry, compiles a more compact and user friendly guidebook integrating the existing IAEA documents on the subject. It provides the necessary information to organize, guide and realize the activities related to the invitation, the technical and economic evaluation of bids, and contracting as an integrated process. Furthermore, this publication indicates how and to what degree the activities preceding the preparation of the bid invitation specification, the evaluation of bids and contracting could influence the process.



Construction Technologies for Nuclear Power Plants

IAEA Nuclear Energy Series NP-T-2.5

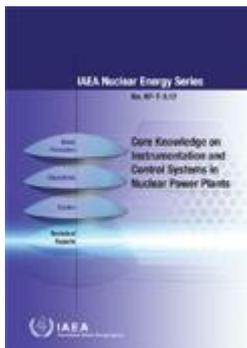
Subject Classification: 0700-Nuclear power

STI/PUB/1526(ISBN:978-92-0-119510-4)

http://www-pub.iaea.org/MTCD/Publications/PDF/P1526_Web.pdf

DESCRIPTION

This publication serves as a guide to the tools and steps that support plans for constructing nuclear power plants, and consequently improve technical and management skills. It details information on the conventional and recently introduced advanced techniques and methods being used in different aspects of the construction phase of a project, both in the nuclear industry as well as in non-nuclear industries.



Core Knowledge of Instrumentation and Control Systems in Nuclear Power Plants

IAEA Nuclear Energy Series NP-T-3.12

Subject Classification: 0702-Nuclear power operations

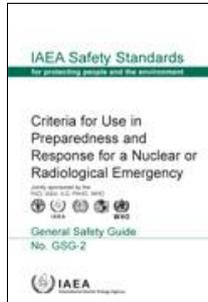
STI/PUB/1495(ISBN:978-92-0-113710-4)141 pp.;47 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1495_web.pdf

DESCRIPTION

This publication is intended to present a basic overview of instrumentation and control (I&C) systems in nuclear power plants (NPPs) and to serve as a reference guide on the subject. Furthermore, it provides an explanation of the significant role I&C systems have in maintaining and improving safety, plant performance and economic returns. Numerous publications have been prepared to address these issues; the present publication places those technical publications within the context of a global view of NPP I&C systems and their life cycles.

IAEA Safety Standards Series



Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency General Safety Guide

IAEA Safety Standards Series No. GSG-2

STI/PUB/1467 (ISBN:978-92-0-107410-2) 91 pp.;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1467_web.pdf



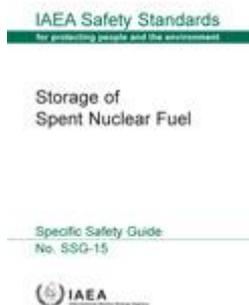
Versão em francês:

Critères à utiliser pour la préparation et la conduite des interventions en cas d'urgence nucléaire ou radiologique

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1467f_web.pdf

DESCRIPTION

This Safety Guide presents a coherent set of generic criteria (expressed numerically in terms of radiation dose) that form a basis for developing the operational levels needed for decision making concerning protective and response actions. The set of generic criteria addresses the requirements established in IAEA Safety Standards Series No. GS-R-2 for emergency preparedness and response, including lessons learned from responses to past emergencies, and provides an internally consistent foundation for the application of radiation protection. The publication also proposes a basis for a plain language explanation of the criteria for the public and for public officials. Contents: 1. Introduction; 2. Basic considerations; 3. Framework for emergency response criteria; 4. Guidance values for emergency workers; 5. Operational criteria; Appendix I: Dose concepts and dosimetric quantities; Appendix II: Examples of default limits for deposition, individual monitoring and contamination of food, milk and water; Appendix III: Development of EALs and example EALs for light water reactors; Appendix IV: Observables at the scene of a nuclear or radiological emergency.



Storage of Spent Nuclear Fuel

IAEA Safety Standards Series No. SSG-15

Subject Classification: 0611-Radioactive waste management

STI/PUB/1503 (ISBN:978-92-0-115110-0) 110 pp.; 0 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1503_web.pdf

DESCRIPTION

This Safety Guide provides recommendations and guidance on the storage of spent nuclear fuel. It

covers all types of storage facilities and all types of spent fuel from nuclear power plants and research reactors. It takes into consideration the longer storage periods that have become necessary owing to delays in the development of disposal facilities and the decrease in reprocessing activities. It also considers developments associated with nuclear fuel, such as higher enrichment, mixed oxide fuels and higher burnup. The Safety Guide is not intended to cover the storage of spent fuel if this is part of the operation of a nuclear power plant or spent fuel reprocessing facility. Guidance is provided on all stages for spent fuel storage facilities, from planning through siting and design to operation and decommissioning, and in particular retrieval of spent fuel. Contents: 1. Introduction; 2. Protection of human health and the environment; 3. Roles and responsibilities; 4. Management system; 5. Safety case and safety assessment; 6. General safety considerations for storage of spent fuel. Appendix I: Specific safety considerations for wet or dry storage of spent fuel; Appendix II: Conditions for specific types of fuel and additional considerations; Annex I: Short term and long term storage; Annex II: Operational and safety considerations for wet and dry spent fuel storage facilities; Annex III: Examples of sections of operating procedures for a spent fuel storage facility; Annex IV: Site conditions, processes and events for consideration in a safety assessment (external human induced phenomena); Annex V: Site conditions, processes and events for consideration in a safety assessment (external natural phenomena); Annex VI: Site conditions, processes and events for consideration in a safety assessment (external human induced phenomena); Annex VII: Postulated initiating events for consideration in a safety assessment (internal phenomena).



Establishing the Safety Infrastructure for a Nuclear Power Programme Specific Safety Guide

IAEA Safety Standards Series No. SSG-16

Subject Classification: 0600-Nuclear and Radiological Safety

STI/PUB/1507(ISBN:978-92-0-115310-4)158 pp.;7 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1507_Web.pdf

DESCRIPTION

This Safety Guide provides guidance on the establishment of a national nuclear safety infrastructure as a key component of the overall preparations required for emerging nuclear power programmes. It provides recommendations, presented in the form of 200 sequential actions, on meeting the applicable IAEA safety requirements during the first three phases of the development of a nuclear power programme. It is intended for use by persons or organizations participating in the preparation and implementation of a nuclear power programme, including government officials and legislative bodies, regulatory bodies, operating organizations and external support entities. Contents: 1. Introduction; 2. Implementing general IAEA safety requirements for establishment of the safety infrastructure; 3. Implementing the specific IAEA safety requirements for establishment of the safety infrastructure; Appendix: Overview of actions to be taken in each phase for establishment of the safety infrastructure.

IAEA Safety Standards
for protecting people and the environment

 Control of Orphan
Sources and Other
Radioactive Material
in the Metal Recycling
and Production Industries

 Specific Safety Guide
No. SSG-17


Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries Specific Safety Guide

IAEA Safety Standards Series No. SSG-17

Subject Classification: 0609-Radiation protection

STI/PUB/1509(ISBN:978-92-0-115510-8)82 pp.;3 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1509_web.pdf
DESCRIPTION

This Safety Guide provides guidance on the establishment of a national nuclear safety infrastructure as a key component of the overall preparations required for emerging nuclear power programmes. It provides recommendations, presented in the form of 200 sequential actions, on meeting the applicable IAEA safety requirements during the first three phases of the development of a nuclear power programme. It is intended for use by persons or organizations participating in the preparation and implementation of a nuclear power programme, including government officials and legislative bodies, regulatory bodies, operating organizations and external support entities. Contents: 1. Introduction; 2. Implementing general IAEA safety requirements for establishment of the safety infrastructure; 3. Implementing the specific IAEA safety requirements for establishment of the safety infrastructure; Appendix: Overview of actions to be taken in each phase for establishment of the safety infrastructure.

IAEA Safety Standards
for protecting people and the environment

 Meteorological and
Hydrological Hazards
in Site Evaluation for
Nuclear Installations

 Specific Safety Guide
No. SSG-18


Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations Specific Safety Guide

IAEA Safety Standards Series No. SSG-18

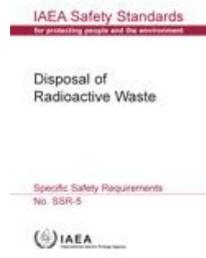
Subject Classification: 0600-Nuclear and Radiological Safety

STI/PUB/1506(ISBN:978-92-0-115210-7)146 pp.;4 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1506_web.pdf
DESCRIPTION

This IAEA Safety Guide, which is jointly sponsored by the World Meteorological Organization, provides recommendations and guidance on how to comply with the safety requirements on assessing hazards associated with meteorological and hydrological phenomena. It includes the state-of-practice in the international community for dealing with these external natural hazards, considering the lessons learned from recent catastrophic events as well as from new findings on climate variability. Furthermore, the publication provides recommendations on how to determine the corresponding design bases for these natural hazards, and recommends measures for protection of the site against hazards of this type. This Safety Guide is intended for use by regulatory bodies, designers of nuclear installations, and operating organizations responsible for the safety of installations and for the protection of people and the environment from harmful effects of ionizing radiation. Contents: 1. Introduction; 2. General considerations and recommendations; 3. Necessary information and investigations (databases); 4. Assessment of meteorological hazards; 5. Assessment of hydrological hazards; 6. Determination of design parameters; 7. Measures for site protection; 8. Changes of hazards with time; 9. Monitoring and warning systems for the protection of installations; 10. Nuclear installations other than nuclear power plants; 11. Management system for hazard assessments; Annex I: Examples of criteria for defining basis parameters for meteorological variables; Annex II: Assessment of tsunami hazard: Current practice in the States; Annex III: Tsunami warning systems;

Annex IV: Climate change



Disposal of Radioactive Waste Specific Safety Requirements

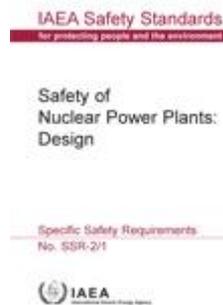
IAEA Safety Standards Series No. SSR-5

STI/PUB/1449 (ISBN:978-92-0-103010-8) 62 pp.

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1449_web.pdf

DESCRIPTION

This publication establishes requirements applicable to all types of radioactive waste disposal facility. It is linked to the fundamental safety principles for each disposal option and establishes a set of strategic requirements that must be in place before facilities are developed. Consideration is also given to the safety of existing facilities developed prior to the establishment of present day standards. The requirements will be complemented by Safety Guides that will provide guidance on good practice for meeting the requirements for different types of waste disposal facility. Contents: 1. Introduction; 2. Protection of people and the environment; 3. Safety requirements for planning for the disposal of radioactive waste; 4. Requirements for the development, operation and closure of a disposal facility; 5. Assurance of safety; 6. Existing disposal facilities; Appendices.



Safety of Nuclear Power Plants: Design Specific Safety Requirements

IAEA Safety Standards Series No. SSR-2/1

Subject Classification: 0603-Nuclear power plants
 STI/PUB/1534 (ISBN:978-92-0-121510-9)

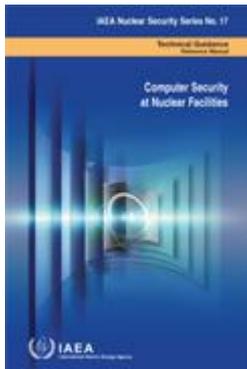
http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1534_web.pdf

DESCRIPTION

This IAEA Safety Guide, which is jointly sponsored by the World Meteorological Organization, provides recommendations and guidance on how to comply with the safety requirements on assessing hazards associated with meteorological and hydrological phenomena. It includes the state-of-practice in the international community for dealing with these external natural hazards, considering the lessons learned from recent catastrophic events as well as from new findings on climate variability. Furthermore, the publication provides recommendations on how to determine the corresponding design bases for these natural hazards, and recommends measures for protection of the site against hazards of this type. This Safety Guide is intended for use by regulatory bodies, designers of nuclear installations, and operating organizations responsible for the safety of installations and for the protection of people and the environment from harmful effects of ionizing radiation. Contents: 1. Introduction; 2. General considerations and recommendations; 3. Necessary information and investigations (databases); 4. Assessment of meteorological hazards; 5. Assessment of hydrological hazards; 6. Determination of design parameters; 7. Measures for site protection; 8. Changes of hazards with time; 9. Monitoring and warning systems for the protection of installations; 10. Nuclear installations other than nuclear power plants; 11. Management system for hazard assessments; Annex I: Examples of criteria for defining basis parameters for meteorological variables; Annex II:

Assessment of tsunami hazard: Current practice in the States; Annex III: Tsunami warning systems; Annex IV: Climate change

IAEA Nuclear Security Series



Computer Security at Nuclear Facilities

IAEA Nuclear Security Series 17

Subject Classification: 0600-Nuclear and Radiological Safety

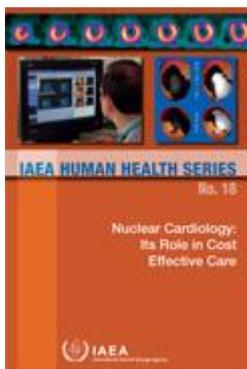
STI/PUB/1527(ISBN:978-92-0-120110-2)69 pp.;7 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1527_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 the facility. 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.

IAEA Human Health Series



Nuclear Cardiology: Its Role in Cost Effective Care

IAEA Human Health Series 18

Subject Classification: 0103-Medical physics (including dosimetry)

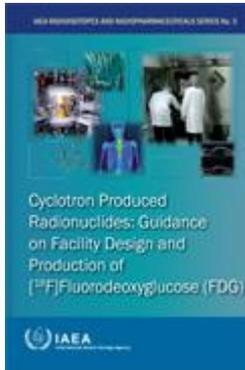
STI/PUB/1516(ISBN:978-92-0-117410-9)87 pp.;32 figures

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1516_web.pdf

DESCRIPTION

This publication presents a comprehensive overview of cardiovascular disease (CVD) as a public health problem in developing countries, the relative role of nuclear cardiology methods within a scenario of unprecedented technological advances and the evidence behind recommendations. The potential role of non-invasive functional imaging in diagnosis of obstructive coronary artery disease and more widely in defining the global burden of CVD is also discussed, as well as the need for training, education and quality assurance in nuclear cardiology practice.

IAEA Radioisotopes and Radiopharmaceuticals Series



Cyclotron Produced Radionuclides: Guidance on Facility Design and Production of [18F]Fluorodeoxyglucose (FDG)

IAEA Radioisotopes and Radiopharmaceuticals Series 3

Subject Classification: 0101-Nuclear medicine (including radiopharmaceuticals)

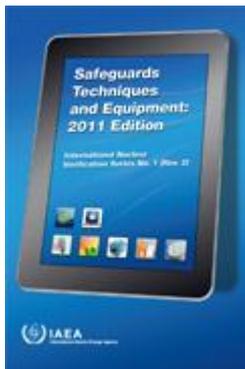
STI/PUB/1515 (ISBN:978-92-0-117310-2) 153 pp.; 11 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1515_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 the facility. 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.

International Nuclear Verification Series



Safeguards Techniques and Equipment: 2011 Edition

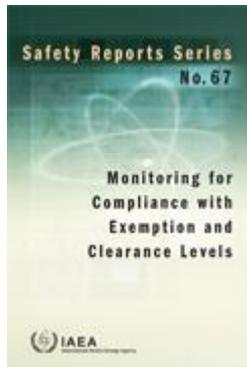
International Nuclear Verification Series 1 (Rev.2)

Subject Classification: 1000-Safeguards IAEA/NVS/1/2011 (ISBN:978-92-0-118910-3) 146 pp.; 68 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/nvs1_web.pdf

DESCRIPTION

This publication is intended to give a full and balanced description of the safeguards techniques and equipment used for nuclear material accountancy, containment and surveillance measures, environmental sampling and data security. Specific features are included in installed equipment systems in order to ensure authenticity and confidentiality of information. A completely new section on new and novel technologies has been added to describe the most recent and promising future safeguards tools to detect declared and undeclared nuclear material and activities. As new verification measures continue to be developed the material in this book will be periodically reviewed and updated versions issued.

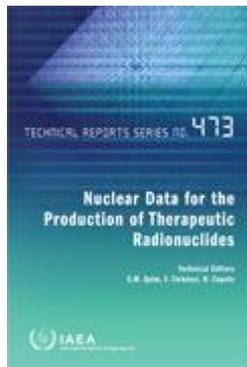
Safety Reports Series**Monitoring for Compliance with Exemption and Clearance Levels***Safety Reports Series 67*

Subject Classification: 0611-Radioactive waste management

STI/PUB/1511(ISBN:978-92-0-115810-9)186 pp.;17 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1511_web.pdf**DESCRIPTION**

Radioactive material is present in the environment and is also generated during the operation and subsequent decommissioning of facilities that have used or produced radioactive material. Particularly during decommissioning, a large amount of material may be generated that is below the activity limits requiring regulatory control. This Safety Report focuses on the development and practical implementation of strategies for demonstrating compliance with the established exemption and clearance levels. It provides valuable information for operators, regulatory bodies and other organizations that are involved in the monitoring of material for its release from regulatory control.

Technical Reports Series**Nuclear Data for the Production of Therapeutic Radionuclides***Technical Reports Series 473*

Subject Classification: 0306-Nuclear data

STI/DOC/010/473(ISBN:978-92-0-115010-3)382 pp.

http://www-pub.iaea.org/MTCD/Publications/PDF/trs473_web.pdf**DESCRIPTION**

This publication reports the results of an IAEA coordinated research project on nuclear data for the production of therapeutic radionuclides. The aim was to provide standardized data for the production of radionuclides for therapeutic purposes, embracing current and possible future needs. Experimental data compilations, theoretical calculations and evaluations were carried out for each of the reactions. The recommendations for production of both established and emerging radionuclides are discussed, and the analysis carried out to produce the recommended data is also presented. The improved quality of the nuclear data will make reactor and accelerator production of therapeutic radionuclides much more efficient, and should also enhance their quality through improved purity of the product. The current publication comprises new evaluated data for both reactor and accelerator production of therapeutic radionuclides based on more than 50 different production reactions.

Proceedings Series - International Atomic Energy Agency



Justification of Medical Exposure in Diagnostic Imaging *Proceedings of an International Workshop Held in Brussels, Belgium, 2-4 September 2009*

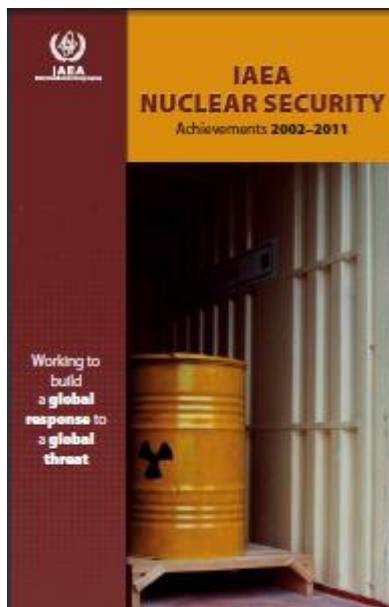
Proceedings Series - International Atomic Energy Agency

Subject Classification: 0103-Medical physics (including dosimetry)
STI/PUB/1532 (ISBN:978-92-0-121110-1) 175 pp.; 24 figures;

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1532_web.pdf

DESCRIPTION

This is the proceedings of an international workshop on justification of medical exposure in diagnostic imaging, jointly organized by the IAEA and the European Commission. The workshop brought together experts from many countries and organizations to discuss how to ensure more effective application of justification in diagnostic imaging. Major areas that need action were identified, such as the coordination of methods and evidence used as a basis for clinical imaging recommendations, engagement of all relevant organizations in deployment of these recommendations, and involvement of manufacturers and referring healthcare providers. Furthermore, the important role of education and training was re-emphasized. In the conclusion, the workshop participants highlighted that regulatory authorities have a key role in ensuring effective justification, and that an effective partnership with the medical community must be maintained to do this.



<http://www.iaea.org/Publications/Booklets/NuclearSecurity/nsachievements0312.pdf>

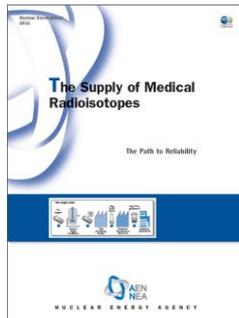


Nuclear Data Newsletter Issue No. 53, May 2012

Nuclear Data Newsletter 53

Subject Classification: 0306-Nuclear data

<http://www-pub.iaea.org/MTCD/Publications/PDF/Newsletters/ND-NL-53.pdf>



The Supply of Medical Radioisotopes *The Path to Reliability*

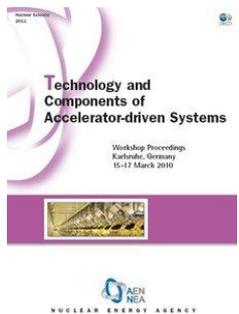
English, 170 pages, published: 06/23/11

NEA#06985, ISBN: 978-92-64-99164-4

Volume of the series: Nuclear Development

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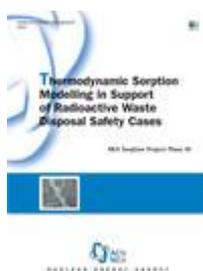
Technology and Components of Accelerator-driven Systems *Workshop Proceedings, Karlsruhe, Germany, 15-17 March 2010*

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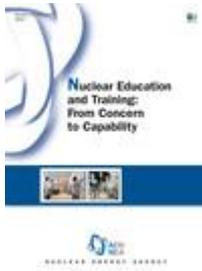
The accelerator-driven system (ADS) is a potential transmutation system option as part of partitioning and transmutation strategies for radioactive waste in advanced nuclear fuel cycles. These proceedings contain all the technical papers presented at the workshop on Technology and Components of Accelerator-driven Systems held on 15-17 March 2010 in Karlsruhe, Germany. The workshop provided experts with a forum to present and discuss state-of-the-art developments in the field of ADS and neutron sources. It included a special session on the EUROTRANS as well as four technical sessions covering current ADS experiments and test facilities, accelerators, neutron sources and subcritical systems.

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Thermodynamic Sorption Modelling in Support of Radioactive Waste Disposal Safety Cases *NEA Sorption Project Phase III*

A central safety function of radioactive waste disposal repositories is the prevention or sufficient retardation of radionuclide migration to the biosphere. Performance assessment exercises in various countries, and for a range of disposal scenarios, have demonstrated that one of the most important processes providing this safety function is the sorption of radionuclides along potential migration paths beyond the engineered barriers. Thermodynamic sorption models (TSMs) are key for improving confidence in assumptions made about such radionuclide sorption when preparing a repository's safety case. This report presents guidelines for TSM development as well as their application in repository performance assessments. They will be of particular interest to the sorption modelling community and radionuclide migration modellers in developing



safety cases for radioactive waste disposal.

Nuclear Development

Nuclear Education and Training From Concern to Capability

The OECD Nuclear Energy Agency (NEA) first published in 2000 *Nuclear Education and Training: Cause for Concern?*, which highlighted significant issues in the availability of human resources for the nuclear industry. Ten years on, *Nuclear Education and Training: From Concern to Capability* considers what has changed in that time and finds that, while some countries have taken positive actions, in a number of others human resources could soon be facing serious challenges in coping with existing and potential new nuclear facilities. This is exacerbated by the increasing rate of retirement as the workforce ages. This report provides a qualitative characterisation of human resource needs and appraises instruments and programmes in nuclear education and training initiated by various stakeholders in different countries. In this context, it also examines the current and future uses of nuclear research facilities for education and training purposes. Regarding the nuclear training component of workforce competence, it outlines a job taxonomy which could be a basis for addressing the needs of workers across this sector. It presents the taxonomy as a way of enhancing mutual recognition and increasing consistency of education and training for both developed and developing countries

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