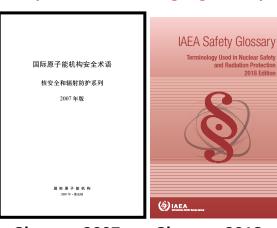
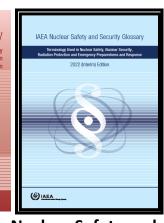
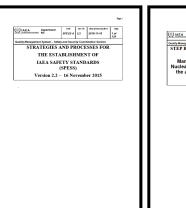
Status on 24 February 2023 – Double-Click on the relevant cover page to open the corresponding pdf file – You may also search for words or SS number in the title Draft standards recently endorsed by the CSS are also available at the following address: http://www-ns.iaea.org/committees/css/default.asp?fd=1084&dt=0 Existing Standards under revision and new Standards under development are also highlighted by "UR" and "UD", respectively, followed by the number of the project











**Fundamental Safety Principles** 

**Glossary 2007** 

Glossary 2018

**Nuclear Safety and Security Glossary** 

**SPESS A** 

**SPESS B** 

国际原子能机构 安全标准 促进安全的政府、法律和 监管框架 一般安全要求 第 GSR Part 1 (Rev.1)号 ( IAEA

GSR Part 1 (Rev. 1) Governmental, Legal and **Regulatory Framework** for Safety



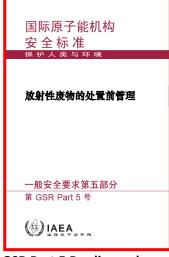
**GSR Part 2 Leadership and Management for Safety** 



**GSR Part 3 Radiation Protection and Safety** of Radiation Sources: **International Basic Safety Standards** 



GSR Part 4 (Rev. 1) **Safety Assessment for Facilities and Activities** 



**GSR Part 5 Predisposal** Management of **Radioactive Waste** 



**GSR Part 6 Decommissioning** of Facilities



**GSR-Part 7 Preparedness** and Response for a Nuclear or Radiological Emergency

国际原子能机构 安全标准 核装置的厂址评价 特定安全要求 第 SSR-1 号 (I) IAEA SSR-1 Site Evaluation for

**Nuclear Installations** 



SSR-2/1 (Rev. 1) Safety of Nuclear Power Plants: Design

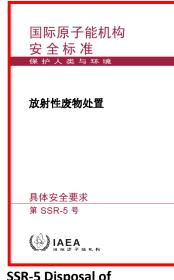




Reactors



**Fuel Cycle Facilities** 



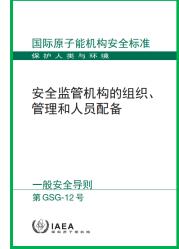
SSR-5 Disposal of **Radioactive Waste** 



SSR-6 (Rev. 1) Regulations for the Safe Transport of **Radioactive Material** 

Operation (2018 Edition)

# Governmental, Legal and Regulatory Framework – Safety Infrastructure



GSG-12: Organisation, Management and Staffing of a Regulatory Body for Safety



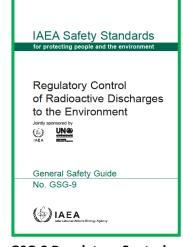
GSG-13: Functions and Processes of the Regulatory Body for Safety



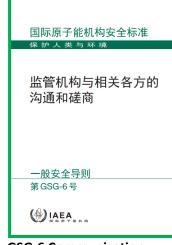
SSG-12 Licensing Process for Nuclear Installations Partially revised by GSG-13 UR DS539



SSG-16 (Rev. 1) Establishing the Safety Infrastructure for a Nuclear Power Programme



GSG-9 Regulatory Control of Radioactive Discharges to the Environment

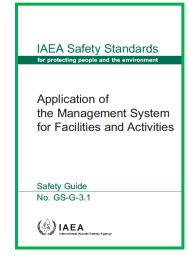


GSG-6 Communication and Consultation with Interested Parties by the Regulatory Body

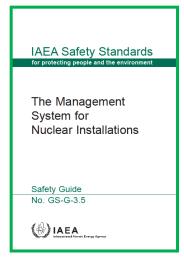


WS-G-5.1 Release of Sites from Regulatory Control on Termination of Practices Partially revised by GSG-13

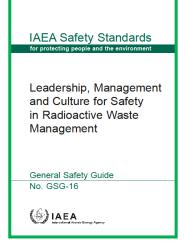
## **Management Systems**



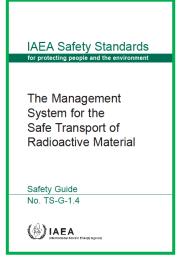
GS-G-3.1 Application of the Management System for Facilities and Activities UR DS513



GS-G-3.5 The Management System for Nuclear Installations



GSG-16 Leadership, Management and Culture for Safety in Radioactive Waste Management



TS-G-1.4 The Management System for the Safe Transport of Radioactive Material UR DS530

# **Radiation Protection and Safety of Radiation Sources Remediation**



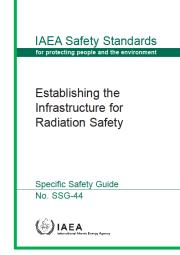
GSG-7 Occupational Radiation Protection



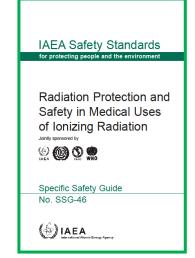
GSG-8 Radiation Protection of the Public and the Environment



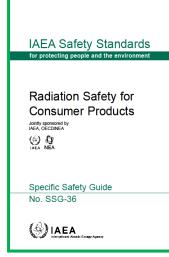
GSG-10 Prospective
Radiological Environmental
Impact Assessment for
Facilities and Activities



SSG-44 Establishing the Infrastructure for Radiation Safety



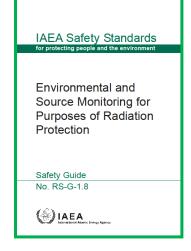
SSG-46 Radiation Protection and Safety in Medical Uses of Ionizing Radiation



SSG-36 Radiation Safety for Consumer Products



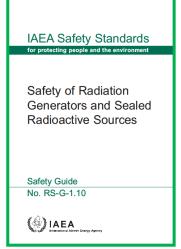
RS-G-1.7 Application of the Concepts of Exclusion, Exemption and Clearance UR DS499 and DS500



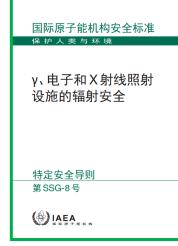
RS-G-1.8 Environmental and Source Monitoring for Purposes of Radiation Protection UR DS505



RS-G-1.9 Categorization of Radioactive Sources



RS-G-1.10 Safety of Radiation Generators and Sealed Radioactive Sources



SSG-8 Radiation Safety of Gamma, Electron and X Ray Irradiation Facilities



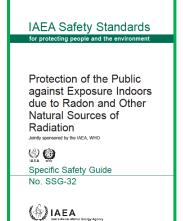
SSG-11 Radiation Safety in Industrial Radiography UR DS540



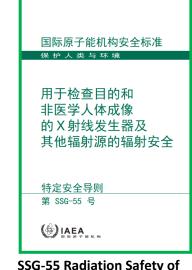
SSG-17 Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries



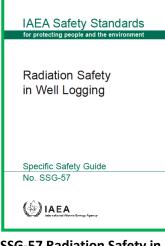
SSG-19 National Strategy for Regaining Control over Orphan Sources and Improving Control over Vulnerable Sources



SSG-32 Protection of the Public against Exposure Indoors due to Radon and Other Natural Sources of Radiation



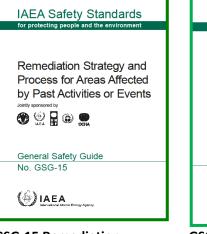
SSG-55 Radiation Safety of X Ray Generators and Other Radiation Sources Used for Inspection Purposes and for Non-medical Human Imaging



SSG-57 Radiation Safety in SSG-58 Radiation Safety in the Use of Nuclear Gauges



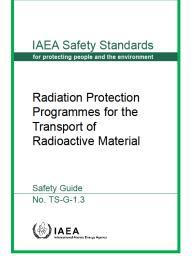
SSG-59 Radiation Safety of Accelerator Based Radioisotope Production Facilities



GSG-15 Remediation Strategy and Process for Areas Affected by Past Activities or Events



Practices, Including Non-Medical Imaging



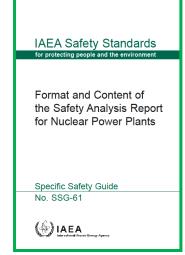
TS-G-1.3 Radiation
Protection Programmes
for the Transport of
Radioactive Material
UR DS521

DS470 Radiation Safety of Radiation Sources used in Research and Education UD

DS519 Protection of Workers against Exposure due to Radon

DS538 Long Term Post
Remediation Management of
Areas Affected by Past
Activities and Events UD

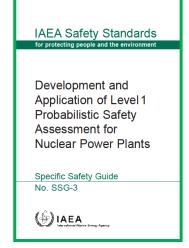
# **Safety Assessment**



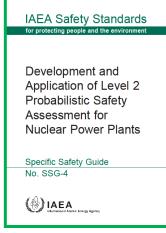
SSG-61 Format and Content of the Safety Analysis Report for Nuclear Power Plants



SSG-2 (Rev. 1) Deterministic Safety Analysis for Nuclear Power Plants



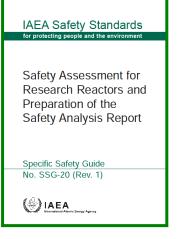
SSG-3 Development and Application of Level 1 Probabilistic Safety Assessment for Nuclear Power Plants UR DS523



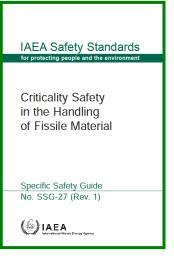
SSG-4 Development and Application of Level 2 Probabilistic Safety Assessment for Nuclear Power Plants UR DS528



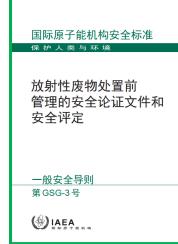
WS-G-5.2 Safety Assessment for the Decommissioning of Facilities Using Radioactive Material



SSG-20 (Rev. 1) Safety
Assessment for Research
Reactors and Preparation of
the Safety Analysis Report



SSG-27 (Rev. 1) Criticality Safety in the Handling of Fissile Material



GSG-3 The Safety Case and Safety Assessment for the Predisposal Management of Radioactive Waste



GSG-10 Prospective Radiological Environmental Impact Assessment for Facilities and Activities DS537 Safety Demonstration of Innovative Technology in Power Reactor Designs UD

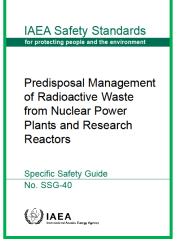
# Radioactive Waste Management, Decommissioning & Remediation



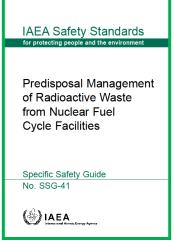
**GSG-1** Classification of **Radioactive Waste** 



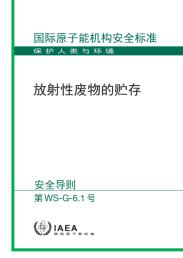
**GSG-9 Regulatory Control of Radioactive Discharges to the Environment** 



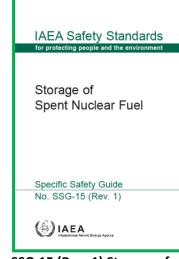
SSG-40 Predisposal **Management of Radioactive Waste from Nuclear Power** Plants and Research Reactors Cycle Facilities



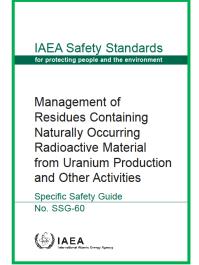
SSG-41 Predisposal **Management of Radioactive Waste from Nuclear Fuel** 



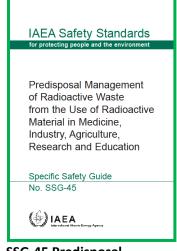
WS-G-6.1 Storage of **Radioactive Waste** 



SSG-15 (Rev. 1) Storage of **Spent Nuclear Fuel** 



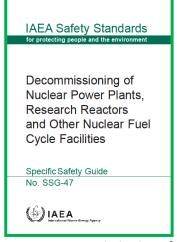
SSG-60 Management of **Residues Containing Naturally Occurring Radioactive Material from Uranium Production and Other Activities** 



SSG-45 Predisposal **Management of Radioactive** Waste from the Use of Radioactive Material in Medicine, Industry, Agriculture, Research and Education



**GSG-3** The Safety Case and Safety Assessment for the **Predisposal Management of Radioactive Waste** 



SSG-47 Decommissioning of **Nuclear Power Plants, Research Reactors and other Nuclear Fuel Cycle Facilities** 



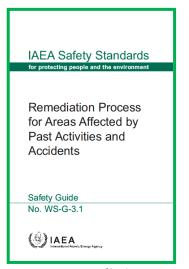
SSG-49 Decommissioning of Medical, Industrial and **Research Facilities** 



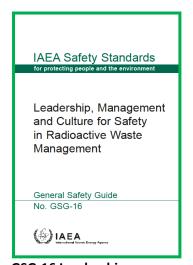
WS-G-5.2 Safety Assessment for the Decommissioning of **Facilities Using Radioactive** Material



WS-G-5.1 Release of Sites from Regulatory Control on **Termination of Practices** Partially revised by GSG-13

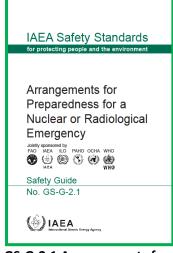


WS-G-3.1 Remediation **Process for Areas Affected by Past Activities and Accidents UR DS468** 

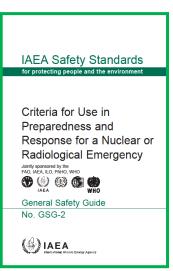


GSG-16 Leadership, Management and Culture for Safety in Radioactive Waste Management DS526: National Policies and Strategies for the Safety of Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation UD

# **Emergency Preparedness and Response**



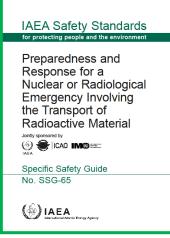
GS-G-2.1 Arrangements for Preparedness for a Nuclear or Radiological Emergency UR DS504



GSG-2 Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency UR DS527



GSG-11 Arrangements for the Termination of a Nuclear or Radiological Emergency

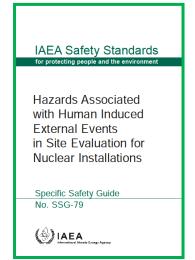


SSG-65 Preparedness and Response for a Nuclear or Radiological Emergency involving the Transport of Radioactive Material

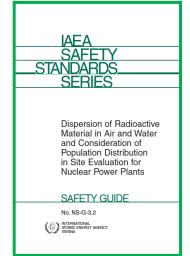


GSG-14 Arrangements for Public Communications in Preparedness and Response for a Nuclear or Radiological Emergency

### **Site Evaluation**



SSG-79 Hazards Associated with Human Induced External Events in Site Evaluation for Nuclear Installations



NS-G-3.2 Dispersion of Radioactive Material in Air and Water and Consideration of Population Distribution in Site Evaluation for Nuclear Power Plants Partially revised by GSG-10

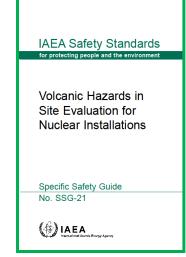
**UR DS529** 



GSG-10 Prospective Radiological Environmental Impact Assessment for Facilities and Activities



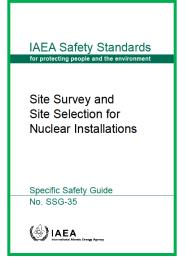
SSG-18 Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations



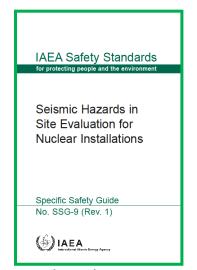
SSG-21 Volcanic Hazards in Site Evaluation for Nuclear Installations



NS-G-3.6 Geotechnical
Aspects of Site Evaluation
and Foundations for Nuclear
Power Plants UR DS531

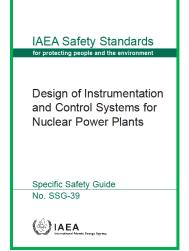


SSG-35 Site Survey and Site Selection for Nuclear Installations

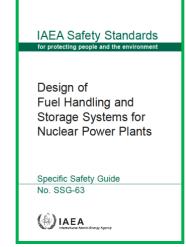


SSG-9 (Rev. 1) Seismic Hazards in Site Evaluation for Nuclear Installations

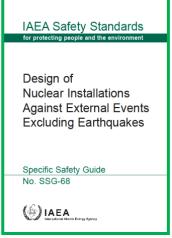
#### **Nuclear Power Plants**



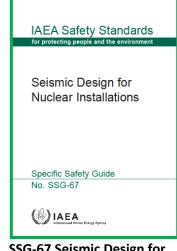
SSG-39 Design of **Instrumentation and Control Systems for Nuclear Power Plants** 



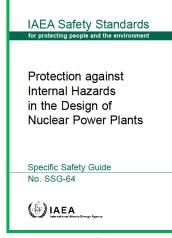
SSG-63 Design of Fuel **Handling and Storage Systems for Nuclear Power Plants** 



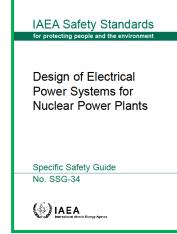
SSG-68 Design of Nuclear **Installations Against External Events Excluding Earthquakes** 



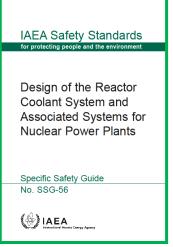
SSG-67 Seismic Design for **Nuclear Installations** 



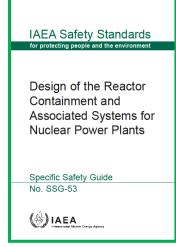
**SSG-64 Protection** against Internal Hazards in the Design of Nuclear Power **Plants** 



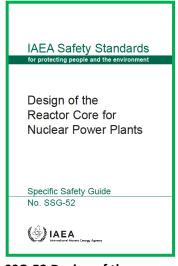
**SSG-34 Design of Electrical Power Systems for Nuclear Power Plants** 



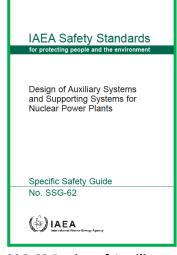
SSG-56 Design of the **Reactor Coolant System** and Associated Systems for Nuclear Power Plants



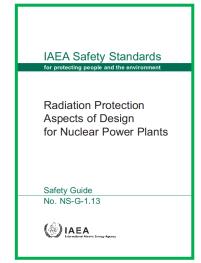
SSG-53 Design of the **Reactor Containment and Associated Systems for Nuclear Power Plants** 



SSG-52 Design of the **Reactor Core for Nuclear Power Plants** 



SSG-62 Design of Auxiliary **Systems and Supporting Systems for Nuclear Power Plants** 



NS-G-1.13 Radiation **Protection Aspects of Design** for Nuclear Power Plants **UR DS524** 

核电厂的确定性 安全分析 特定安全导则 第 SSG-2 (Rev.1)号 IAEA **DS508** Assessment of the

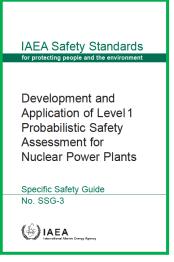
Safety Approach for Design **Extension Conditions and Application of the Practical Elimination Concept in the Design of Nuclear Power** 

UD

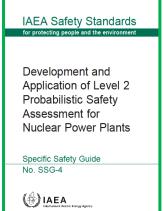
**Plants** 



SSG-2 (Rev. 1) Deterministic **Safety Analysis for Nuclear Power Plants** 



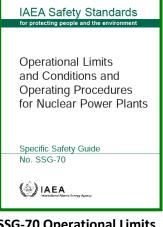
SSG-3 Development and **Application of Level 1 Probabilistic Safety Assessment for Nuclear Power Plants UR DS523** 



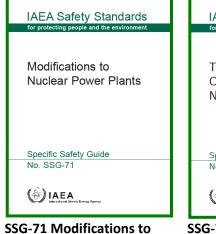
**SSG-4 Development and Application of Level 2 Probabilistic Safety Assessment for Nuclear Power Plants UR DS528** 



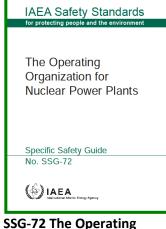
SSG-77 Protection Against **Internal and External Hazards in the Operation** of Nuclear Power Plants



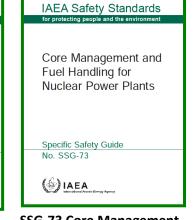
**SSG-70 Operational Limits** and Conditions and operating Procedures for **Nuclear Power Plants** 



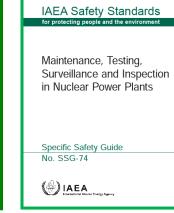
**Nuclear Power Plants** 



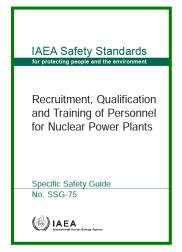
**SSG-72 The Operating Organization for Nuclear Power Plants** 



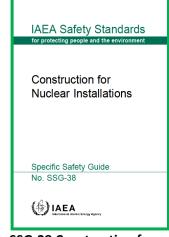
**SSG-73 Core Management** and Fuel Handling for **Nuclear Power Plants** 



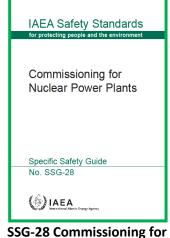
SSG-74 Maintenance, Testing, Surveillance and **Inspection in Nuclear Power Plants** 



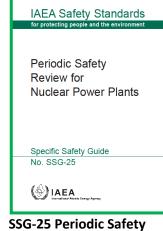
SSG-75 Recruitment, **Qualification and Training** of Personnel for Nuclear **Power Plants** 



SSG-38 Construction for **Nuclear Installations** 



**Nuclear Power Plants** 



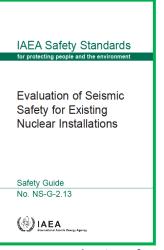
**Review for Nuclear Power** Plants UR DS535



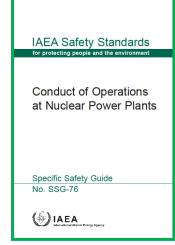
SSG-50 Operating **Experience Feedback for Nuclear Installations** 

IAEA Safety Standards Ageing Management and Development of a Programme for Long Term Operation of Nuclear Power Plants Specific Safety Guide No. SSG-48 (+) IAEA

SSG-48 Ageing Management and Development of a **Programme for Long Term Operation of Nuclear Power Plants** 



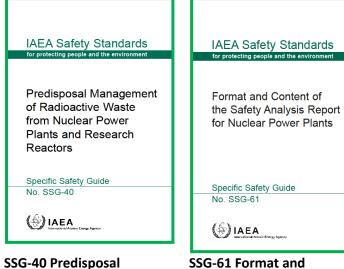
NS-G-2.13 Evaluation of **Seismic Safety for Existing Nuclear Installations UR DS522** 



#### SSG-76 Conduct of **Operations at Nuclear Power Plants**

Management of

**Research Reactors** 



SSG-61 Format and **Content of the Safety Radioactive Waste from Analysis Report for Nuclear Power Plants and Nuclear Power Plants** 

IAEA Safety Standards

Accident Management

**Nuclear Power Plants** 

**Management Programmes** 

**for Nuclear Power Plants** 

Programmes for

Specific Safety Guide No. SSG-54

( IAEA

SSG-54 Accident

IAEA Safety Standards Chemistry Programme for Water Cooled **Nuclear Power Plants** Specific Safety Guide No. SSG-13 ( IAEA SSG-13 Chemistry

**Programme for Water** 

**Cooled Nuclear Power** 

Plants UR DS525

SSG-30 Safety Classification of Structures, Systems and **Components in Nuclear Power Plants** 

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IAEA Safety Standards

Safety Classification of

**Nuclear Power Plants** 

Components in

Specific Safety Guide No. SSG-30

Structures, Systems and

IAEA Safety Standards Criticality Safety in the Handling of Fissile Material Specific Safety Guide No. SSG-27 (Rev. 1) (A) IAEA SSG-27 (Rev. 1) Criticality

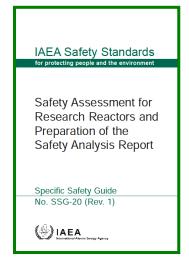
Safety in the Handling of **Fissile Material** 

IAEA Safety Standards IAEA Safety Standards Human Factors Engineering **Equipment Qualification** in the Design of for Nuclear Installations Nuclear Power Plants Specific Safety Guide No. SSG-51 Specific Safety Guide No. SSG-69 (A) IAEA ( IAEA SSG-51 Human Factors

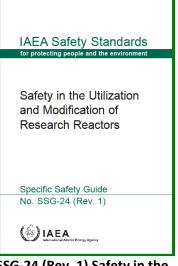
SSG-69 Equipment **Qualification for Nuclear Engineering in the Design** of Nuclear Power Plants Installations

**DS537** Safety **Demonstration of Innovative Technology in** Power Reactor Designs UD

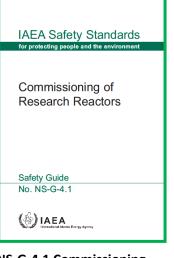
# Research **Reactors**



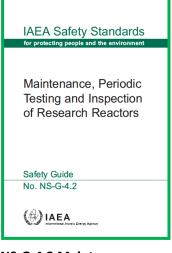
SSG-20 (Rev. 1) Safety **Assessment for Research Reactors and Preparation of** the Safety Analysis Report



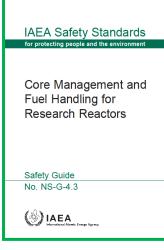
SSG-24 (Rev. 1) Safety in the **Utilization and Modification** of Research Reactors



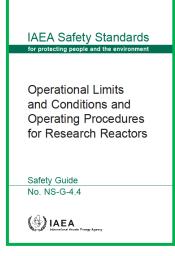
**NS-G-4.1 Commissioning** of Research Reactors **UR DS509** 



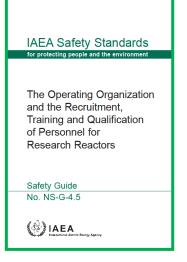
NS-G-4.2 Maintenance, **Periodic Testing and Inspection of Research Reactors UR DS509** 



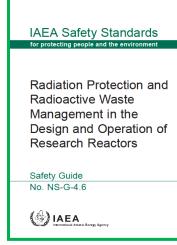
NS-G-4.3 Core Management and Fuel Handling for **Research Reactors UR DS509** 



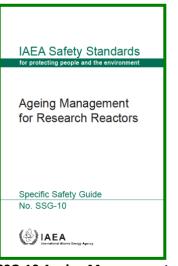
**NS-G-4.4 Operational Limits and Conditions and Operating Procedures for Research Reactors UR DS509** 



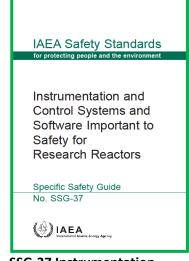
**NS-G-4.5** The Operating Organization and the Recruitment, Training and **Qualification of Personnel** for Research Reactors **UR DS509** 



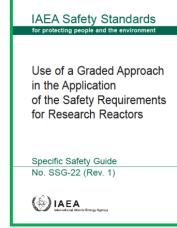
NS-G-4.6 Radiation **Protection and Radioactive Waste Management in the Design and Operation of Research Reactors UR DS509** 



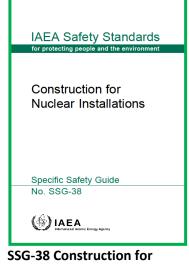
SSG-10 Ageing Management for Research Reactors **UR DS509** 



SSG-37 Instrumentation and Control Systems and **Software Important to** Safety for Research **Reactors UR DS509** 



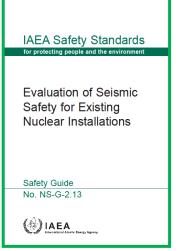
SSG-22 (Rev. 1) Use of a **Graded Approach in the Application of the Safety Requirements for Research** Reactors



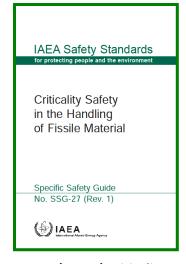
**Nuclear Installations** 

IAEA Safety Standards Operating Experience Feedback for Nuclear Installations Specific Safety Guide No. SSG-50 ( IAEA

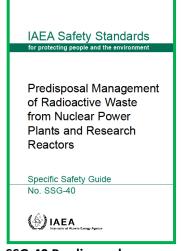
**SSG-50 Operating Experience Feedback for Nuclear Installations** 



NS-G-2.13 Evaluation of **Seismic Safety for Existing Nuclear Installations UR DS522** 



SSG-27 (Rev. 1) Criticality Safety in the Handling of Fissile Material



SSG-40 Predisposal
Management of Radioactive
Waste from Nuclear Power
Plants and Research Reactors



**Nuclear Installations** 

SSG-69 Equipment
Qualification for Nuclear
Installations

IAEA Safety Standards
for protecting people and the environment

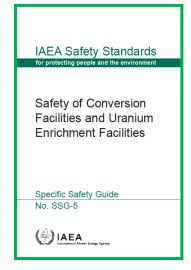
Design of
Nuclear Installations
Against External Events
Excluding Earthquakes

Specific Safety Guide
No. SSG-68

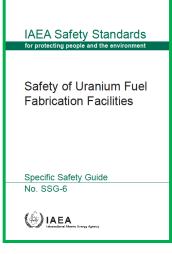
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SSG-68 Design of Nuclear Installations Against External Events Excluding Earthquakes

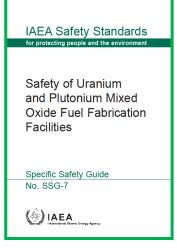
# **Nuclear Fuel Cycle Facilities**



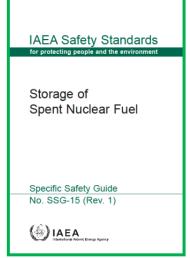
SSG-5 Safety of Conversion Facilities and Uranium Enrichment Facilities UR DS517



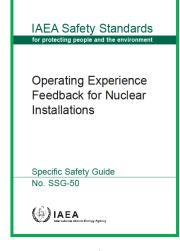
SSG-6 Safety of Uranium Fuel Fabrication Facilities UR DS517



SSG-7 Safety of Uranium and Plutonium Mixed Oxide Fuel Fabrication Facilities UR DS517



SSG-15 (Rev. 1) Storage of Spent Nuclear Fuel

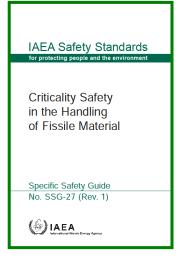


SSG-50 Operating Experience Feedback for Nuclear Installations IAEA Safety Standards
for protecting people and the environment

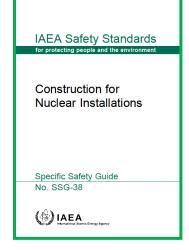
Evaluation of Seismic
Safety for Existing
Nuclear Installations

Safety Guide
No. NS-G-2.13

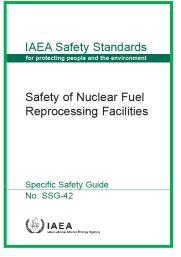
NS-G-2.13 Evaluation of Seismic Safety for Existing Nuclear Installations UR DS522



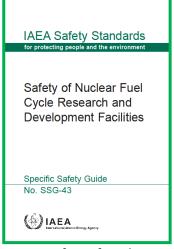
SSG-27 (Rev. 1) Criticality Safety in the Handling of Fissile Material



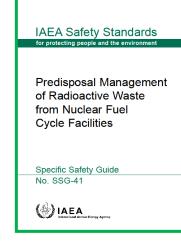
SSG-38 Construction for Nuclear Installations



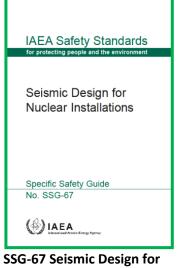
SSG-42 Safety of Nuclear Fuel Reprocessing Facilities UR DS518



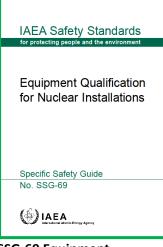
SSG-43 Safety of Nuclear Fuel Cycle Research and Development Facilities UR DS518



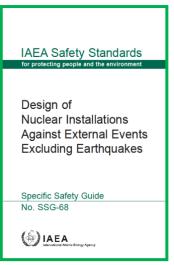
SSG-41 Predisposal Management of Radioactive Waste from Nuclear Fuel Cycle Facilities



SSG-67 Seismic Design fo Nuclear Installations

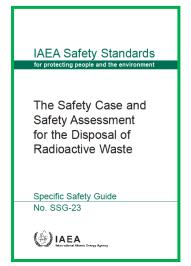


SSG-69 Equipment Qualification for Nuclear Installations



SSG-68 Design of Nuclear Installations Against External Events Excluding Earthquakes

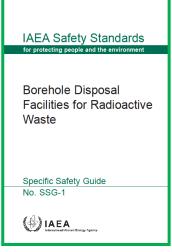
## **Radioactive Waste Disposal Facilities**



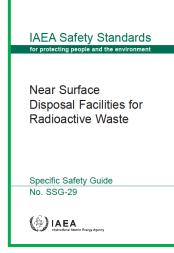
SSG-23 The Safety Case and Safety Assessment for the Disposal of Radioactive Waste



SSG-14 Geological Disposal Facilities for Radioactive Waste



SSG-1 Borehole Disposal Facilities for Radioactive Waste UR DS512



SSG-29 Near Surface Disposal Facilities for Radioactive Waste IAEA Safety Standards
for protecting people and the environment

Monitoring and
Surveillance of
Radioactive Waste
Disposal Facilities

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SSG-31 Monitoring and Surveillance of Radioactive Waste Disposal Facilities IAEA Safety Standards
for protecting people and the environment

Leadership, Management
and Culture for Safety
in Radioactive Waste
Management

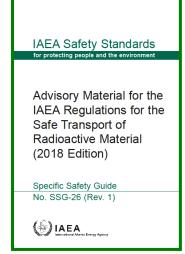
General Safety Guide
No. GSG-16

IAEA

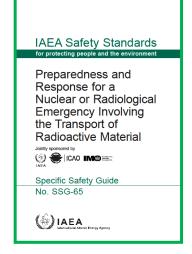
Management

GSG-16 Leadership, Management and Culture for Safety in Radioactive Waste Management

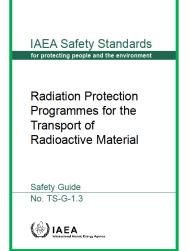
## **Transport of Radioactive Material**



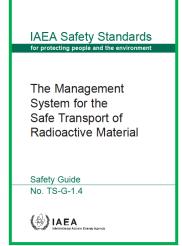
SSG-26 Advisory Material SSG-26 (Rev. 1) Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material (2018 Edition)



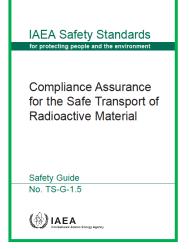
SSG-65 Preparedness and Response for a Nuclear or Radiological Emergency involving the Transport of Radioactive Material



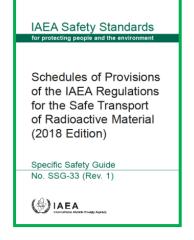
TS-G-1.3 Radiation
Protection Programmes
for the Transport of
Radioactive Material
UR DS521



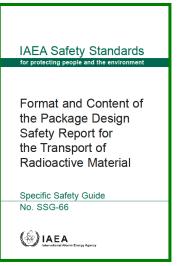
TS-G-1.4 The Management System for the Safe Transport of Radioactive Material UR DS530



TS-G-1.5 Compliance
Assurance for the Safe
Transport of Radioactive
Material UR DS515



SSG-33 (Rev. 1) Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material (2018 Edition)



SSG-66 Format and Content of the Package Design Safety Report (PDSR) for the Transport of Radioactive Material