42nd Meeting of the Waste Safety Standards Committee

28 November – 1 December 2016

Agenda item W3.4
Waste Safety Standards (WSS) status and future steps

Sandra Geupel
WASSC Scientific Secretary
Waste and Environmental Safety Section
Safety Fundamentals
Fundamental Safety Principles

General Safety Requirements

Part 2. Leadership and Management for Safety
Part 3. Radiation Protection and the Safety of Radiation Sources
Part 4. Safety Assessment for Facilities and Activities
Part 5. Predisposal Management of Radioactive Waste
Part 6. Decommissioning and Termination of Activities
Part 7. Emergency Preparedness and Response

Specific Safety Requirements

1. Site Evaluation for Nuclear Installations
2. Safety of Nuclear Power Plants
   2.1. Design and Construction
   2.2. Commissioning and Operation
3. Safety of Research Reactors
4. Safety of Nuclear Fuel Cycle Facilities
5. Safety of Radioactive Waste Disposal Facilities
6. Safe Transport of Radioactive Material

Collection of Safety Guides
Steps in the development process

STEP 1: Preparing a Document Preparation Profile (DPP)
STEP 2: Internal review of the DPP
STEP 3: Review of the DPP by the SSC(s)
STEP 4: Review of the DPP by the CSS
STEP 5: Preparing the draft safety standard
STEP 6: First internal review of the draft safety standard
STEP 7: First review of the draft safety standard by the SSC(s)
STEP 8: Soliciting comments by Member States
STEP 9: Addressing comments by Member States
STEP 10: Second internal review of the draft safety standard
STEP 11: Second review of the draft safety standard by the SSC(s)
STEP 12: Review of the draft safety standard by the CSS
STEP 13: Establishment as an IAEA safety standard (by the Publications Committee and/or Board of Governors (for SF and SR only))
STEP 14: Publication of the safety standard
Current status of Safety Requirements for WM
WSS on Predisposal Management of Radioactive Waste

The Management System for the Predisposal and Disposal of RW

2009               2016                2016               2006
               Step 14               2013

2009  2016  2016  2006

IAEA Safety Standards
for protecting people and the environment

Radiation Protection and
Safety of Radiation Sources: International Basic Safety Standards
General Safety Requirements Part 3
No. GSR Part 3

NEW

Classification of
Radioactive Waste
General Safety Guide
No. GSG-1

Predisposal Management
of Radioactive Waste
from Nuclear Power
Plants and Research
Reactors
Specific Safety Guide
No. SSG-40

NEW

Predisposal Management
of Radioactive Waste
from Nuclear Fuel
Cycle Facilities
Specific Safety Guide
No. SSG-41

DS 454

IAEA Safety Standards
for protecting people and the environment

Storage of Radioactive Waste
Safety Guide
No. WS-G-6.1

DS 477

IAEA Safety Standards
for protecting people and the environment

Management of Waste
from the Use of
Radioactive Material
in Medicine, Industry,
Agriculture, Research
and Education
Safety Guide
No. WS-G-2.7

The Safety Case and
Safety Assessment for the Predisposal
Management of Radioactive Waste
General Safety Guide
No. GSG-3

IAEA Safety Standards
for protecting people and the environment

The Management
System for the
Predisposal and
Disposal of RW

NEW

NEW

IAEA Safety Standards
for protecting people and the environment

Fundamental Safety Principles
Safety Fundamentals
No. SF-1

IAEA Safety Standards
for protecting people and the environment

Predisposal Management
of Radioactive Waste
General Safety Requirements Part 5
No. GSR Part 5
WSS and related SSs for Predisposal Management at NFCF

Step 11

2014

DS 478

IAEA Safety Standards
for protecting people and the environment

Safety of Nuclear Fuel
Cycle Facilities

2014

IAEA Safety Standards
for protecting people and the environment

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards

Safety Requirements
No. NS-R-5 (Rev. 1)

2014

DS 489

NEW

IAEA Safety Standards
for protecting people and the environment

Predisposal Management of Radioactive Waste

General Safety Requirements Part 5
No. GSR Part 5

2009

Step 5

NEW

IAEA Safety Standards
for protecting people and the environment

Predisposal Management of Radioactive Waste from Nuclear Fuel Cycle Facilities

Specific Safety Guide
No. SSG-41

2016

IAEA Safety Standards
for protecting people and the environment

Storage of Radioactive Waste

Safety Guide
No. WS-G-6.1

2006

IAEA Safety Standards
for protecting people and the environment

Storage of Spent Nuclear Fuel

Specific Safety Guide
No. SSG-16

2012

IAEA Safety Standards
for protecting people and the environment

Criticality Safety in the Handling of Fissile Material

Specific Safety Guide
No. SSG-27

2014
WSS on Disposal of Radioactive Waste

The Management System for the Predisposal and Disposal of RW

IAEA Safety Standards
for protecting people and the environment

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards
General Safety Requirements Part 3
No. GSR Part 3

IAEA Safety Standards
for protecting people and the environment

Fundamental Safety Principles
Safety Fundamentals
No. SF-1

IAEA Safety Standards
for protecting people and the environment

Disposal of Radioactive Waste
Specific Safety Requirements
No. SSR-5

2014  2006  2011

Classification of Radioactive Waste
Near Surface Disposal Facilities for Radioactive Waste
Geological Disposal Facilities for Radioactive Waste
Borehole Disposal Facilities for Radioactive Waste
The Safety Case and Safety Assessment for the Disposal of Radioactive Waste
Monitoring and Surveillance of Radioactive Waste Disposal Facilities

General Safety Guide
No. GSG-1
Specific Safety Guide
No. SSG-29
Specific Safety Guide
No. SSG-14
Specific Safety Guide
No. SSG-1
Specific Safety Guide
No. SSG-23
Specific Safety Guide
No. SSG-31
Safety Guide
No. GS-G-3.4


Step 5
WSS on Management of Radioactive Waste and Residues from Uranium Production and other NORM Industries

- IAEA Safety Standards: for protecting people and the environment
  - Fundamental Safety Principles: Safety Fundamentals No. SF-1
  - Predisposal Management of Radioactive Waste: General Safety Requirements Part 5 No. GSR Part 5
  - Disposal of Radioactive Waste: Specific Safety Requirements No. SSR-5

- Management of Radioactive Residues from Uranium Production and Other NORM Activities: No. WS-G-1.2

- IAEA Safety Standards Series:
  - 2002
  - DS 459
  - 2006
  - 2009
  - 2011
  - 2014

- Step 7
WSS on Decommissioning

DS 500
IAEA Safety Standards Series
Application of the Concept of Clearance
2004
Step 3

DS 452
IAEA Safety Standards Series
Decommissioning of NPPs, Research Reactors and other Nuclear Fuel Cycle Facilities
1999 / 2001
Step 13

DS 403
IAEA Safety Standards Series
Decommissioning of Medical, Industrial and Research Facilities
1999
Step 9

IAEA Safety Standards
for protecting people and the environment
Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards
General Safety Requirements Part 3
No. GSR Part 3
2014

IAEA Safety Standards
for protecting people and the environment
Fundamental Safety Principles
Safety Fundamentals
No. SF.1
2006

IAEA Safety Standards
for protecting people and the environment
Decommissioning of Facilities
General Safety Requirements Part 6
No. GSR Part 6
2014

DS 452
IAEA Safety Standards Series
Decommissioning of NPPs, Research Reactors and other Nuclear Fuel Cycle Facilities
1999 / 2001
Step 13

IAEA Safety Standards Series
Decommissioning of Medical, Industrial and Research Facilities
1999
Step 9
Application of the Concept of Clearance

Remediation Process for Areas Affected by Past Activities and Accidents

Step 3

Step 7
WSS on Management of Environmental Releases

- **IAEA Safety Standards**
  - *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards*
  - General Safety Requirements Part 3
  - No. GSR Part 3

- **Fundamental Safety Principles**
  - Safety Fundamentals
  - No. SF-1

- **IAEA Regulatory Control of Radioactive Discharges**
  - Application of the Concept of Clearance
  - Safety Guide No. RS-G-1.7
  - 2004

- **Prospective Radiological Environmental Impact Assessment**
  - Radiation Protection of the Public and Protection of the Environment
  - Safety Guide No. RS-G-1.8
  - 2005

- **IAEA Safety Standards**
  - Environmental and Source Monitoring for Purposes of Radiation Protection
  - Safety Guide No. RS-G-1.8
  - 2006

- **DS 500**
  - Step 3

- **DS 442**
  - Step 13

- **DS 427**
  - Step 13

- **DS 432**
  - Step 13

- **Application of the Concept of Clearance**
  - 2004

- **Regulatory Control of Radioactive Discharges**
  - 2006
... where you can find the status of Safety Standards
WASSC Members Area

Welcome

- To look at available files and open them simply select a folder from the left hand menu.
- To add a comment in the 'Drafts for comment' folder you need to login with your username and password (if you have already registered).
- If you need to upload a comment but do not have a username then you can request one by clicking on this registration link.

Next Meeting
The 41st meeting of WASSC will be held in Vienna in the week commencing 20 June 2016.
General Information

- Draft document on interfaces between WSS & related docs (1,150kb) - 23/02/2010
- Frequently Asked Questions on IAEAs SS (32kb) - 03/03/2011
  - New!
Updated Work Plan
(2014 – 2017)
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<td>Decommissioning of Medical, Industrial and Research Facilities</td>
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<td>Radiological Environmental Impact Assessment for Facilities and Activities (Revision of NS-G-3.2)</td>
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<td>Decommissioning of Nuclear Facilities, except facilities using NORM, medical, industrial, research and disposal facilities (Revision and combination of WS-G-2.1 &amp; WS-G-2.4)</td>
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WSS and related SSs in future meetings

**WASSC-43 (June 2017)**

- **WSS for approval**: DS403 (S11), DS477 (S7),
- DPP for revision of RS-G-1.8 (S3)
- **Other SSs for approval**: DS472 (S11), DS473 (S11),
  DS475 (S7), DS483 (S11), DS484 (S7), DS486 (S11),
  DS487 (S7), DPP for revision of GS-G-2.1 (S3)

**WASSC-44 (November 2017)**

- **WSS for approval**: DS459 (S11), DS489 (S11)
- **Other SSs for approval**: DS474 (S11), DS491 (S11), …
Thank you!