

Information and update on issues 2010 Lisbon Workshop

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IAEA

International Atomic Energy Agency

Purpose and content

- IAEA International Workshop on Sustainable Management of Disused Sealed Radioactive Sources, Lisbon, Portugal, 11-15 October 2010
- Activities & Recent Developments

IAEA International Workshop on Sustainable Management of Disused Sealed Radioactive Sources

Lisbon, Portugal
11-15 October 2010

70 Participants from > 40 MSs

Purpose:

- Promote safe and secure mgmt of disused sources
- Emphasis on sustainable long-term mgmt, strategies



Sustainable Management of Disused Sealed Radioactive Sources (DSRS)

International Workshop on Sustainable Management of Disused Sealed Radioactive Sources (DSRS), 11 - 15 October, 2010 in Lisbon, Portugal



The workshop was organized by the International Atomic Energy Agency (IAEA) in cooperation with the Government of Portugal through the Nuclear and Technological Institute (ITN). [Chairman's report](#); [presentations](#)

Purpose

The purpose of the workshop was to promote the safe and secure management of disused sealed radioactive sources, with emphasis on sustainable long term management, in particular the development of strategies that integrate safety and security, and the role of legal instruments such as the [Code of Conduct on the Safety and Security of Radioactive Sources](#) (the Code of Conduct), and the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management ([the Joint Convention](#)).

Participants

The workshop was attended by approximately 70 participants from over 40 different countries representing national programmes, regulatory bodies, international projects and organizations implementing and managing radioactive sources.

2010 Lisbon Meeting Programme

- Role of International Instruments (Code of Conduct, Joint Convention);
- National experience with International Instruments;
- International Initiatives and multinational cooperation in managing DSRS;
- National strategies to manage DSRS;
- IAEA recommendations to manage DSRS safely and securely;
- Disposal of DSRS

2010 Lisbon Meeting Observations

- Getting consensus for a national comprehensive “cradle-to-grave” strategy for RWM is a challenge in many countries
- Disposal of DSRS is an unresolved issue in most, if not all, countries
- Many countries with small inventories of DSRS expressed their interest in the borehole disposal technology
- Regaining control of orphaned sources and preventing loss of disused sources should be considered as high priority in all countries
- A system of financial guarantees could possibly help minimizing the loss of DSRS

2010 Lisbon Meeting Conclusions

- Integration of safety, security and technology
 - In terms of national regulation, may be interpreted as the need for a strong RB covering safety and security
- International and Regional Cooperation
 - Interactions between the Joint Convention and the Code of Conduct Parties
 - JC review meetings: establishing focused working groups or topical sessions to debate specific issues
- Policies & Strategies
 - Maintaining and/or regaining control over sources (RAIS, etc)
 - International Catalogue: SRS & Devices
 - Recycling of DSRS strongly encouraged
 - Transport of radioactive sources
 - Interim storage in safe and secure facilities
 - Disposal

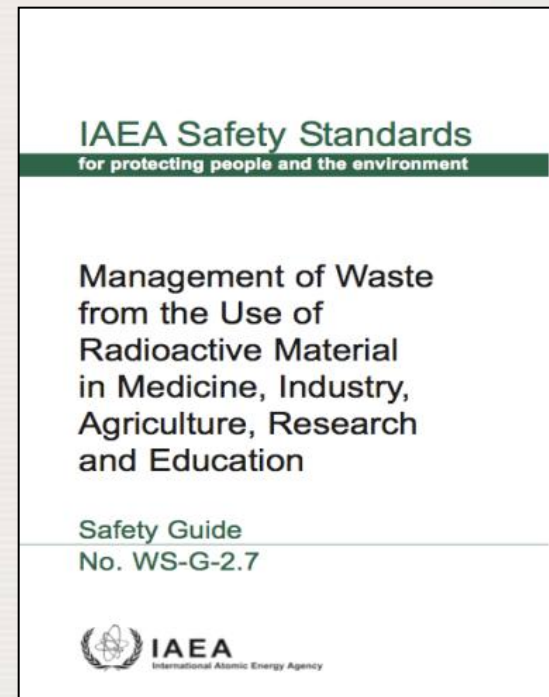
2010 Lisbon Meeting Conclusions

DSRS disposal: ultimate goal

- Most DSRS can be safely disposed of in surface or near-surface disposal facilities depending on their half-lives
- The BOSS system (borehole disposal technology) appears to offer a sustainable safe and secure solution for long-term management of DSRS. It is particularly attractive for developing countries where the total DSRS inventory is small

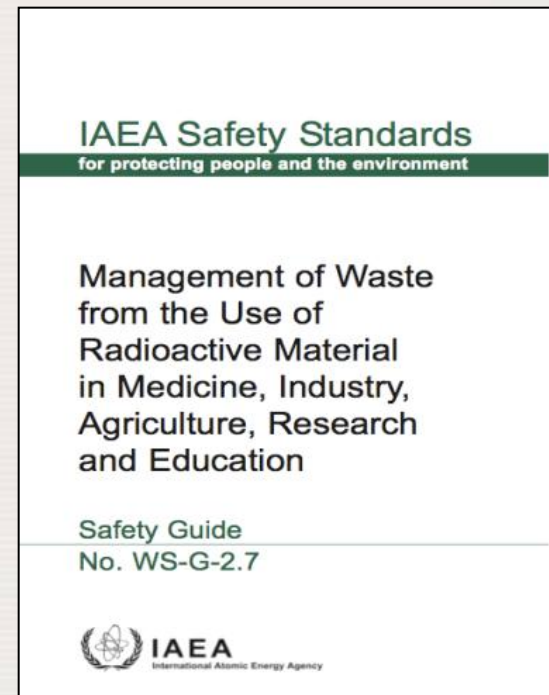
DS454, Safety Guide “Small Users”

- Provide guidance on how to meet requirements on the safe management of radioactive waste arising from the use of radioactive materials in medicine, industry and research.
- Applicable to all activities involving radioactive waste associated with the use of radioactive materials including spent and disused sealed sources.
- Generally focused on waste generated from small to moderate sized facilities, for example, hospitals and research centres, where waste is not usually generated in bulk quantities.



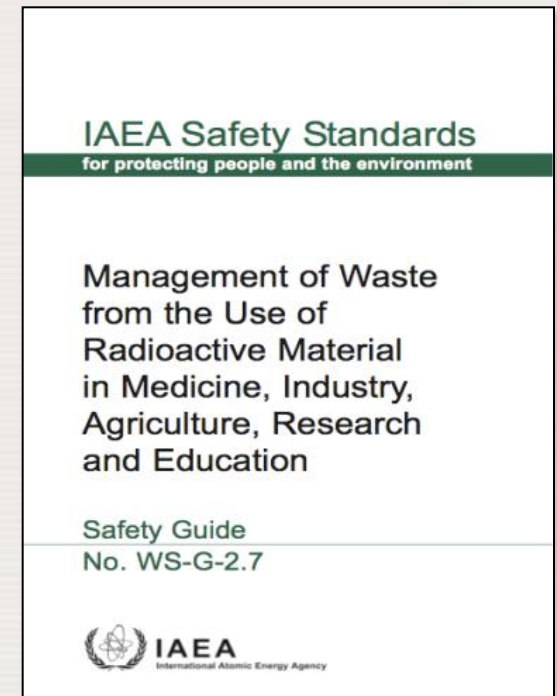
DS454 Proposed Structure

1. INTRODUCTION
2. PROTECTION OF HUMAN HEALTH AND ENVIRONMENT
3. RESPONSIBILITIES ASSOCIATED WITH PREDISPOSAL MANAGEMENT OF RADIOACTIVE WASTE
4. STEPS IN THE PREDISPOSAL MANAGEMENT OF WASTE
5. SAFETY CASE AND SAFETY ASSESSMENT
6. DEVELOPMENT AND OPERATION OF PREDISPOSAL RWM FACILITIES AND ACTIVITIES
7. MANAGEMENT SYSTEMS



DS454 Treatment of Disused Sources

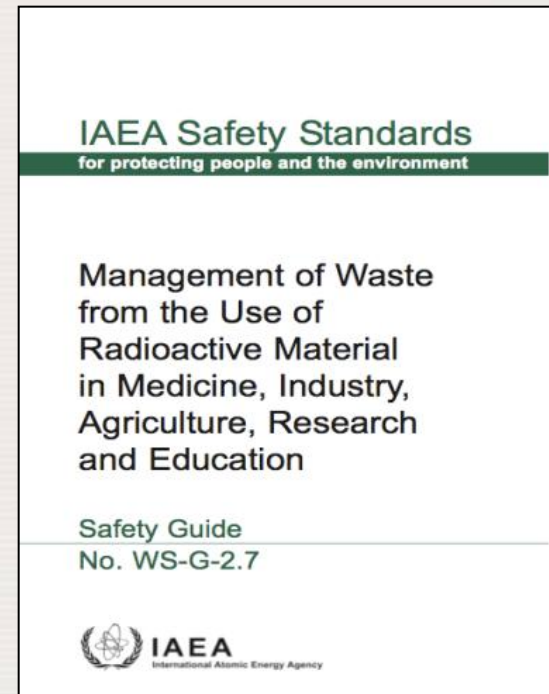
- “Spent or disused sealed sources are not considered as waste in certain countries but the safe management of those sources entails the requirements of radioactive waste, and as such they will be considered in this document.”
- Specifically addressed:
 - Ch 4
 - Appendix I (typical sources used)
 - Appendix V (Mgmt Flow Diagram)
 - Appendix VI: (Ex’s of disused and spent sources and id of mgmt Techniques)
 - Appendix VII: (Ex’s of a Strategy on id and Location of spent and/or Disused Sealed Sources)

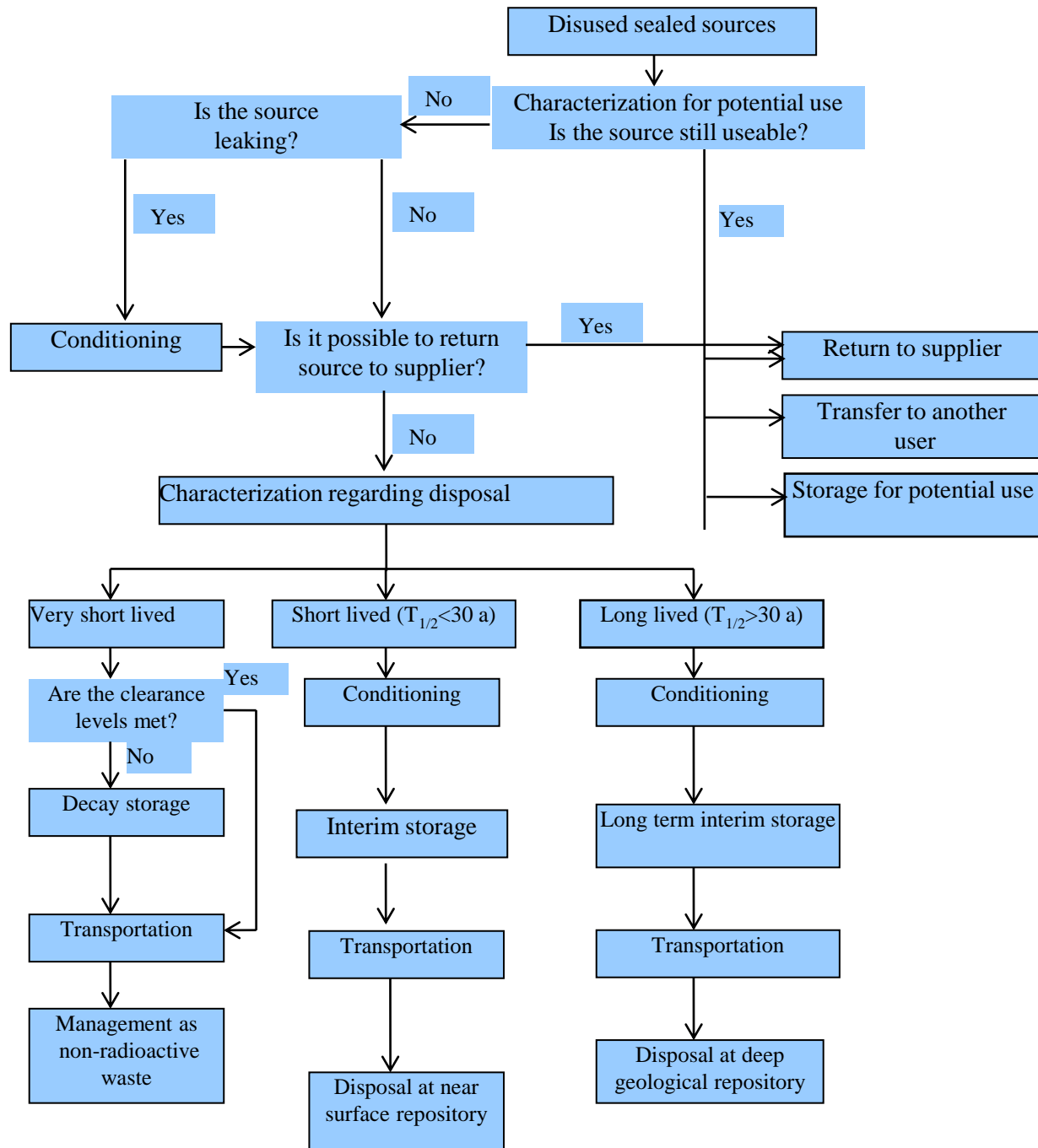


DS454 Treatment of Disused Sources

Strategy for disused, orphan sources

- Inventory control & reporting
 - Use by other organizations
 - Return to supplier
 - Temporary storage in original shielding
 - Conditioning
 - Long term storage
 - Disposal
-
- Maintenance of continuity of control





Assistance to Member States

- Predisposal Management (treatment, storage, discharges, clearance, release from regulatory control)
 - All types/sources of RW generation, disused sources, SF
- Disposal (landfill, NSD, Geological, Borehole Disposal)
- Identification of needs
 - Legal & regulatory infrastructure
 - Available resources (human/technical/financial)
 - Demonstration of safety
 - Use of graded approach

Assistance to Member States

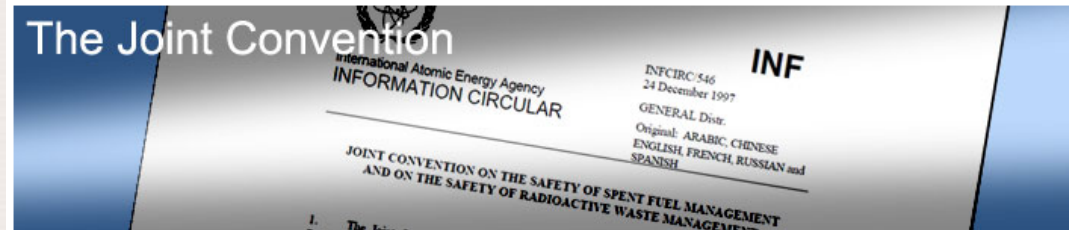
- Working with MS through TC, ANSN
National, regional, and inter-regional projects
(EM, WK, TR, PR)
- International Training Course on Management of RW (& DS) in Accordance with IAEA Safety Standards and International Best Practice
- International Harmonization Projects
 - CRAFT (Plenary June 2012)
 - PRISM
 - GEOSAF
 - DUAL PURPOSE TRANSPORT-STORAGE CASK

Joint Convention 4th Review Meeting

4th Review Mtg:
14 – 23 May 2012

Parties: 63 (subject to
Entry Into Force date)
Signatories: 42

Receiving proposals
for Open-Ended
Working Groups



Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management



Forthcoming events

The **Fourth Review Meeting** will be held from **14 to 23 May 2012**.

The **Officers Meeting** to prepare the Review Meeting will be held on **12 and 13 May 2012**.



Status and background

The Joint Convention entered into force on 18 June 2001. The current number of signatories and Contracting Parties is provided in the [status](#) while detailed information about the Joint Conventions is provided in the [background](#).



Joint Convention Documents

The [Articles of the Joint Convention](#) (INFCIRC/546), the [Rules of Procedure and Financial Rules](#) (INFCIRC/602/Rev.3), the [Guidelines regarding the Review Process](#) (INFCIRC/603/Rev.4) and the [Guidelines](#)

regarding the [Form and Structure of National Reports](#) (INFCIRC/604/Rev.1) are provided in all UN languages.

Legal documents

[Legal Agreement](#)

[Latest Status of Signature and Ratification](#)

[Declaration and Reservations](#)

Page links

[Joint Convention Documents](#)

[Results of the Review Meetings](#)

Resources

[Joint Convention Newsletter - Issue No. 2 - September, 2011](#)

[Joint Convention Newsletter - Issue No. 1 - March, 2011](#)

Summary

- Predisposal: the safety standards offer guidance specific to end-of-life management of DSRS. They defer to the Code of Conduct and specialized TECDOCs.
- Disposal: specific guidance is provided for one form of disposal – disposal in small diameter boreholes. Otherwise, general disposal guidance applies.
- Joint Convention: include provisions for the management of DSRS and RW.

Concluding remarks

- Short Term vs Long Term Management
 - Safety Fundamentals require protection of future generations
- Role of Storage
 - Storage = Interim option
 - Commercial experience < 50 yrs
 - (DS371) Long-term storage up to 100 yrs
- National policies & strategies for safety
 - Disposal is **ONLY** long term solution



Thank you!