Agenda Item W 6.3
Draft Safety Guide DS499:
Application of the Concept of Exemption

— For information —

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Draft DPP – DS499 approved in 2017

• New Specific Safety Guide:
  Application of the concept of Exemption

• (Part 1 - Revision of RS-G-1.7, 2004)

  Lead committee: RASSC
  Other committees: WASSC, TRANSSC
  Technical officer: Haridasan Pappinisseri
Background

• Existing RS-G-1.7 was published in 2004. As such it predates safety requirements GSR Part 3 and GSR Part 6.
• Basic information especially the numbers from RS-G-1.7 incorporated into the new BSS (GSR Part 3, 2014) – and there is an absence of relevant guidance
• GSR Part 3 introduced new requirements, new concepts, definitions (e.g. exposure situations)
• GSR Part 3 provided values for exemption and clearance – and need further guidance on its application
• SSG36 addresses exemption specifically as it applies to consumer products – need to ensure consistency
• RS-G-1.7 does not contain any values for exemption (and clearance) of surface contaminated material or commodities.
• It is noted that the values in Table 2 of RS-G-1.7 were established on the basis of an annual effective dose criterion of 10 μSv for realistic cases and 1 mSv for low probability cases.

• Exemption
  – in planned exposure situations - 10 μSv
  – Commodities – existing exposure situations - 1 mSv

• Exemption – planned vs existing exposure situations (international trade in commodities)

• There is also a need to provide guidance on the application of exemption to surface contaminated non-food commodities

• Need consistency with the approach and values for clearance

• Need to consider existing values for transport
New Safety Guide
Application of the Concept of Exemption – DS499
RASSC (lead), WASSC
Sc. Sec: P.P. Haridasan

New Safety Guide
Application of the Concept of Clearance – DS500
WASSC (lead), RASSC, TRANSSC
Sc. Sec: V. Ljubenov

New Safety Report/TECDOC
International trade in commodities containing radionuclides
DS499
Application of the Concept of Exemption

• INTRODUCTION
• THE CONCEPTS
• ROLES AND RESPONSIBILITIES
• GENERIC EXEMPTION
• OTHER EXEMPTION ISSUES
• ANNEX I
• ANNEX II
Previous approvals and current status

- Standards committees approved the DPP499 in June 2017.
- CSS endorsed DPP in November 2017
- **Drafting work started – January 2018**
- First consultancy meeting held in Feb.2018 with 4 experts.
  - This meeting was done in parallel to the CS for DS500 (clearance)
  - Joint sessions held for the two groups on first and last day of the meeting.
Discussion held..

- Jointly discussed the summary of a recent technical meeting aiming guidance on specific levels for land fill disposal in the context of post-accident existing exposure situations (more relevant for DS500).

- Experiences on exemption and clearance with particular context of Fukushima post-accident situation.

- Surface contamination models prepared for monitoring containers at ports in the Netherlands.
Few items for information

• As the concept of exemption is for planned exposure situations (main focus), texts proposed to be drafted in case of existing exposure situations to be moved towards the end of the guide perhaps, either as Annex or Appendix.

• Distinct between artificial and natural radionuclides – BSS approach. Natural radionuclides deliberately incorporated into consumer products to be mentioned – additionally to be referred to SSG36.

• Elaborate the concept of exclusion with same texts in both DS499 and DS500. It is agreed that DS499 team will draft this text and pass to DS500 team.
Few items for information

- Radiological criteria for long lived radionuclides in commodities.
- International/National Trade – generic guidance modifying the existing three paragraphs in RSG-1.7 to be drafted and included in DS499, however, scenarios/calculation details etc can be supported by a separate tecdoc/safety report.
  - Need for binding standards (higher level guidance) and support with technical details in a safety report

Include Tables I and II from the BSS
Few items for information

• Surface contamination
  – Consider grouping of radionuclides for surface contamination
  – How to practically verify the contamination values
  – values for Trade
  – Several assumptions and models

• case by case exemption by the regulatory body

• specific exemption cases (consumer products, sealed sources, unsealed sources etc).

• Liquids/Gases ? (RP65 moderate values apply to liquids/gases too)
Next consultancy meeting- July 2018

Issues to be addressed

- Review of the draft version-1 and further develop the content.
- Develop guidance on generic exemption for equipment
- Develop guidance on sealed sources, unsealed sources, type approved
- Develop **ANNEXES** – Dosimetric modelling of surface contamination; Case study on screening and exemption levels in Japan after Fukushima nuclear accidents
- Further guidance on contaminated non-food commodities and trade – determine content of the safety report.
Thank you!