Report WG 3 DPC

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MA Charette
M Hishida
F Safav
M Milin
MT Lizot
Presentation of ToR by B. Droste
Presentation of comments from Japan, Spain and Switzerland
Proposition from Switzerland: New package type
Spain: No specific new package type is needed.
S. Wittingham:
  - Safety case in two parts: transport and storage
  - No new package type will be needed, modification of current regulations and DPCs will have to comply with them
France: There already is some regulation with requires to look at ageing, monitoring ...
Switzerland: Ageing requirements are necessary and need to be included in the regulations
UK: Why not broaden the scope to all loaded packagings?
Spain concurs to UKs proposal
Spain: Should be added and explained in the regulations:
  - Periodical revision and renewal of certification
  - Transitional arrangements
The WG decided to extend the scope to other type of packages with the same problem of transport after storage and decided on not to propose a new type of package but to look at SSR6 to include the DPC aspects
3 main problems were identified:
  - Consideration of ageing - Periodical inspections
  - Process of periodical revision and renewal of approval certificates
  - Transitional arrangements
Presentation of B. Droste s INF paper with propositions of paragraphs with potential for changes to SSR6
Paragraph 106:
  - S. Wittingham: In-transit storage: Implies one continuous consignment and here this isn’t the case
  - US: Loading and preparation is a part of the transport
  - WNTI: Why not see the storage as a preparation of the transport?
  - Consensus that 106 needs to be considered later
  - Looked up definition of storage in SSG-15, short-term storage up to 50 years, long term up to 100 years
S. Wittingham: Why not include the operational life of packages?
• B. Droste: The management of operational life of usual packages is already covered by existing regulations, we need to deal with the specific problem of shipment after storage

• Presentation of F. Nitsche Germany on the topic
  o 3 new aspects
    ▪ How to use the packaging?
    ▪ Ageing and material behavior
    ▪ Tests before shipment

• Spain: How to deal with renewal system?
  o Not yet in regulations
  o Gap analysis: change of regulations or state of package...
  o 10 year licence for storage: there is no criteria, there has to be a step in between so Germany took 10 years

• F. Nitsche: Renewal isn’t a problem, Germany and others already do this

• Droste: Guidance document is drafted and will be published for additional information

• Discussions on paragraph 106:
  o Lizot: storage is already included (in-transit storage)
  o Dejean: What is storage is not involved? Explain this in the advisory
  o Spain: “Storage until transport”, but this will entail that transport includes the storage
  o Sallit: SSR6 doesn’t need to regulate the storage
  o Zika: IAEA Glossary gives definition of transport and this is only movement of material so no storage

• Discussions on paragraph 306:
  o Sampson: Storage until transport, this includes SSG-15
  o Sallit: A reference to transport after storage should come into the regulations somewhere, this is not limited to ageing only
  o Koch: Include the ageing management program
  o France: Why limitate the proposal to transport after storage? Problem of old type B(U) packages still being used
  o Sallit: This goes outside of the scope of this assignment and this must be handled by the renewal of the approval certificate and not in the regulations

• Discussions on paragraph 503:
  o Which packages do we mean? All packages or only Type B or C?
  o Answer: all packages designed for transport after storage
  o Sallit: In practice we would test only a few packages
  o Spain: Advisory material needs to be added for paragraph 306

• Discussions on paragraph 614bis:
  o Lizot: (a), (b),... still apply
  o This requirement is applicable to all packages
  o WG3 is restricted to working on packages which are transported after storage

• Discussions on paragraph 809:
o Spain: Gap analysis program instead of gap analysis to insure that analysis is done when each time changes occur
  • WNTI: Future work is to add Transitional arrangements for the changes we are doing right now
Proposed changes to SSR6 and recommendations for TS-G-1.1

106. These Regulations apply to the transport of radioactive material by all modes on land, water, or in the air, including transport that is incidental to the use of the radioactive material. Transport comprises all operations and conditions associated with, and involved in, the movement of radioactive material; these include the design, manufacture, maintenance and repair of packaging, and the preparation, consigning, loading, shipment after storage, carriage including in-transit storage, unloading and receipt at the final destination of loads of radioactive material and packages.

In guidance: Explaining the concept of DPC

No change to 306 because it is already captured by the change in 106

In guidance for 306: Considerations of ageing in the design as well as in maintenance by an appropriate ageing management program

503. Before each shipment of any package, it shall be ensured that all the requirements specified in the relevant provisions of these Regulations and in the applicable certificates of approval have been fulfilled. The following requirements shall also be fulfilled, if applicable:
(a) It shall be ensured that lifting attachments that do not meet the requirements of para. 608 have been removed or otherwise rendered incapable of being used for lifting the package, in accordance with para. 609.
(b) Each Type B(U), Type B(M) and Type C package shall be held until equilibrium conditions have been approached closely enough to demonstrate compliance with the requirements for temperature and pressure, unless an exemption from these requirements has received unilateral approval.
(c) For each Type B(U), Type B(M) and Type C package, it shall be ensured by inspection and/or appropriate tests that all closures, valve and other openings of the containment system through which the radioactive contents might escape are properly closed and, where appropriate, sealed in the manner for which the demonstrations of compliance with the requirements of paras 659 and 671 were made.
(d) For packages containing fissile material, the measurement specified in para. 677(b) and the tests to demonstrate closure of each package as specified in para. 680 shall be performed.

(e): For packages provided for shipment after storage, it shall be ensured that all package components have been maintained during storage in a manner of which the demonstration of compliance with the regulations were made.

In guidance for 503 (e): Which regulations? Regulations stated in the current approval certificate.
“Advisory material for 503: Include ageing management program, inspection program preparation before shipment.”

“Clarification of the definition of storage is necessary in SSR6? Look at SSG-15 or glossary for definitions”

Proposal new 614bis:

614bis. The design of the package shall take into account ageing mechanisms that are likely to be encountered in storage operations before transportation.

More explanations on this in advisory material.

809. (f) bis

If the package is to be used for transport after storage, the applicant shall state and justify the consideration of ageing on the safety analysis and within the proposed operating and maintenance instructions.

809. (j) For packages which are also used for transport after storage, a gap analysis program shall be provided, considering changes of regulations, changes in knowledge and changes of the state of the package design, as appropriate. A gap analysis program is a program of systematic analysis of the package design, comparing it to the regulatory requirements, identifying differences, where necessary, proposing actions to deal with those differences.

More explanation on Gap analysis program: In advisory material

838. (r) ... “No modification would be necessary.”