

A joint TRANSSC/WASSC Working Group was established in 2011. According to the Terms of Reference the Working Group developed a technical document "Guidance for preparation of a safety case for a dual purpose cask containing spent fuel". The Working Group also developed following recommendations to TRANSSC and WASSC for changes to be made to existing IAEA Safety Requirements and Safety Guides relevant to licensing and use of transport and storage casks for spent fuel.

Recommendations to TRANSSC

1. Conformity to future transport regulations with potential changes is an issue for Dual Purpose Casks (DPCs) waiting for future transportation. It is recommended to consider introducing a definition of DPC packages in the IAEA transport regulations.
2. There should be a requirement or guidance in the IAEA transport regulations to consider ageing of packages that are intended to be stored for a long time before the transport.
3. Any change of the IAEA transport regulations shall consider that in the section "Transitional Arrangements" in SSR-6 DPCs need to be considered in an appropriate manner so that they can be transported after storage. This applies to DPCs already fabricated and being used for storage of spent fuel.
4. The key issue is how to maintain the DPC Safety Case (DPCSC) for transport during storage – recognizing that storage may be for an extended period of time – so that the DPC can be used for transport regardless of the period of storage. This requires periodic review of the DPCSC and periodic inspections of the DPC. In the review, the gap analysis should be made to identify any impact of changes of transport regulations to the DPCSC and to existing DPCs. Compensating arrangements, if necessary, should be proposed at that time. The gap analysis should consider changes in regulations and change in knowledge since the previous approval period. Therefore, it is recommended to TRANSSC to develop an appropriate guidance material on this matter in TS-G-1.1 (SSG-26).
5. The transport regulations (SSR-6) should be reviewed with respect to the timespan between loading of the package and the completion of the shipment after storage to be consistent with the operation of a DPC, which will be transported more than a few decades after loading; e.g. it should be clarified that interpretation of para. 229 of the 2012 Edition of SSR-6 does not imply that the maximum allowable timespan for a transport postulated is less than one year.

Recommendations to WASSC

1. Current SSG-15 “Storage of Spent Nuclear Fuel” describes an “ageing management program” only generally. It would be more informative for member states if it could include a guideline for preparing an “ageing management program”. Therefore, it is recommended to WASSC to include the description in 1.12.2 and 1.12.3 of “Guidance for preparation of a safety case for a dual purpose cask containing spent fuel” into SSG-15 as an ANNEX.
2. It is beneficial to develop generic test conditions for storage and on-site transport in order to develop a DPCSC. For example, a generic accident drop-test condition applicable on-site equivalent to the transport package drop test requirements in SSR-6 would need to be developed. However, it may be difficult to establish internationally generic test conditions in a manner that provides quantified and reproducible test conditions (e.g., drop test target specifications) like those in SSR-6, due to differences in national approaches. Therefore, it is recommended to WASSC to support the development of a methodology to assess generic test conditions for storage and on-site transport in assisting the Member States to establish their national requirements.