Sections 8
DS491 Draft Safety Guide: Deterministic SA for NPPs - Step 7

COMMENTS BY REVIEWER Reviewer: Page: Country/Organization: Date:				RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
USA 8	8.3 Line 2 (p. 48)	Safety report should provide a list of all plant states considered in the deterministic safety analysis, appropriately grouped according to their frequencies and specific challenges to the integrity of physical barriers against releases of radioactive substances.	Editorial	X			
FIN-5	8.5 Lines 3-4	Brief description of the computer codes used in the deterministic safety analysis should be provided. In addition to the reference to the specific code documentation the description should contain convincing justification that the code is adequate for the given purpose and has been *verified and* validated by the user as described *in para. 5.13 – 5.36.*	Clarification: Verification and validation both should be considered. The reference to relevant paragraphs in the document would be good.	X	"… given purpose and has been verified and validated by the user (see §5.13 to §5.36) ~~to a reasonable extent~~.		
CAN 32	8.5 Lines 3-4	8.5. Brief description of the computer codes used in the deterministic safety analysis should be provided. In addition to the reference to the specific code documentation the description should contain convincing justification that the code is adequate for the given purpose and has been validated by the	Suggest "validated to an appropriate extent". Reasonable confidence is OK for DEC. We want high confidence for DBA. The different requirements for each plant state is captured in para 8.7 below.	X	*See resolution to FIN-5. It covers the proposal*		

		user to ~~a reasonable~~ an appropriate extent.					
GER 42	8.7 Line 2	8.7. The simulation models and the main assumptions used in the analysis for demonstrating compliance with each specific acceptance criterion should be described in detail ~~introduced~~, including description of the scope of validation of the model. This description should include potentially different approaches used for each plant state.	It is very important especially for the review of the computational results to describe the input deck of the plant under examination and the assumptions made in detail. Otherwise, for the reviewer it could be hard to understand the results of the analyses.	X	"… compliance with each specific acceptance criterion should be described in detail ~~introduced~~, including ~~description of~~ the scope of validation …"		
CAN 33	8.9 Line 2 and last line	8.9. The time span of any scenario analysed and presented should extend up to the moment when the plant reaches a safe and stable end state (not all sensitivity calculations need to be presented over the full time scale). What is meant by a safe and stable end state should be defined. Typically it is assumed that a safe and stable end state is achieved when the core is covered and long term heat removal from the core and/or containment is achieved, and the core is subcritical by a given margin.	Sensitivity calculations are not normally presented over the full time scale. Also, for many scenarios, heat must be removed from containment as well as the core.	X	*First comment:* "…reaches a safe and stable end state (typically not all sensitivity calculations need to be presented over the full time scale). What is meant…" *Second:* ":… and long term heat removal from both the core and the containment is achieved, and the core is …"		
CAN 64	8.9 Line 3	Suggest the following changes, Typically, it is assumed that a safe and stable end state is achieved when the core is covered and long term heat removal from the core is achieved, (established controlled venting from	For a multi-unit PHWR with negative pressure containment, a safe and stable end state may include controlled venting from the containment		*See resolution to CAN-33. It is somehow covered there*		*The wording suggested seem too detailed; better to use the one from CAN-33*

		the negative pressure containment in a multi-unit PHWR) and the core is subcritical by a given margin.					
Observer ENISS-71	8.9	Move to 7.27	Inconsistent here. Rather in 7.27.			X	*The adequacy of the location has been checked and confirmed. Chapter 7.27 seems not to be the adequate place.*
CAN 34	8.16 Line 2	8.16. In case of the need, the safety analysis should be reassessed to ensure that it remains valid and meets the objectives set for the analysis. The results ~~shall~~ should be assessed against the current requirements relevant for deterministic safety analysis, applicable experimental data, expert judgment, and comparison with similar analyses.	This is a guidance document. Change to "should" or refer to the standard this requirement is taken from.	X	Editorial		
ALGE 1	8.16 Line 2	The results should be assessed against the current requirements relevant for deterministic safety analysis, applicable experimental data, expert judgment, and comparison with similar analyses.	DS491 is drafted as a safety guide.	X	Editorial		
CAN 65	8.17 Line 1	Suggest the following changes, *8.17. The outcomes of the reassessment including new deterministic safety analyses if necessary should be reflected in updated the safety report with ~~the same~~ an appropriate level of comprehensiveness ~~as the original safety report~~ commensurate with the extent of changes being considered and the potential impacts.*	The level of comprehensiveness of new deterministic analysis should be commensurate with the extent of changes and their impacts being assessed.	X	*Formulation: "… analyses if necessary should be reflected in the updated ~~in the~~ safety analysis report with ~~the same~~ an appropriate level of comprehensiveness ~~as the original safety report~~*		

					commensurate with the extent of changes and the associated impacts.”		
USA 9	8.17 Line 2 (p. 49)	The outcomes of the reassessment including new deterministic safety analyses if necessary should be reflected in the updated ~~the~~ safety report with the same level of comprehensiveness as the original safety report.	Editorial	X	*Covered with the resolution provided to CAN-65*		