

**DS477 “The Management System for the Predisposal and Disposal of Radioactive Waste”**  
**(Draft dated 11 September 2017)**  
**Status: STEP 7**

Note: Blue parts are those to be added in the text. ~~Red parts~~ are those to be deleted in the text.

COMMENTS BY REVIEWER					RESOLUTION			
Reviewer: <b>Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)</b> (with comments of GRS and BfE) Country/Organization: <b>Germany</b> Page 1 of 5 Date: 2017-10-12								
Relevance	Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
3	1	1.7	“The system will describe all the arrangements made for the management for safety, ensure that safety is not compromised and ensure that safety is taken into account in all decision-making processes <del>es</del> .”	Wording	Yes			
1	2	1.8	“This Safety Guide is issued <del>as one of several IAEA Safety Standards that</del> <u>to</u> deal with management systems for the safety of facilities and activities.”	That part of the sentence makes it look like that the document is just one out of many documents. That impression shouldn't be given because it is a very important Safety Standard in the waste area.	Yes			
2	3	1.10	“Assessments of the management system (see Section 4) should demonstrate that the management system is <del>under control</del> <u>operating well</u> , and that the procedures for executing the processes that are controlled under the management system are producing the specified results to satisfy the requirements, thus establishing that the processes are executed correct-	The term <i>operating</i> or <i>performing well</i> is more accurate here.	Yes			

Relevance: 1 – Essentials 2 – Clarification 3 – Wording/Editorial

			ly.”					
1	4	1.14 a)	“By definition, waste is material for which no further use is foreseen. Funds <a href="#">or other financial provisions</a> should be provided to cover waste management, including disposal, at the time of generation of the waste in order not to place an undue burden on future generations.”	Please include this part because there are other strategies in financing than funds in a lot of member states.	Yes			
3	5	1.14 c)	“[...] In other jurisdictions, waste always remains <a href="#">in</a> the responsibility of the original generator.”	Missing word.		Minor edits		
1	6	2.11	“Under senior management direction and oversight, emergency plans, procedures, and other arrangements, including for training, drills and exercises, <del>shall</del> <a href="#">should</a> be developed, implemented, reviewed, updated and maintained in line with Requirements 25 and 26 of GSR Part 7 [12]. Hazard assessment <del>shall</del> <a href="#">should</a> be performed in line with Requirement 4 of GSR Part 7 to provide a basis for developing and implementing a graded approach to preparedness and response for a nuclear or radiological emergency that reflects the characteristics of the wastes, of the waste management facility, and of the site and its vicinity, at each stage in the lifetime of the facility (e.g. operation, decommissioning, closure, post-closure).”	Shall→Should because it is a Safety Guide and not a Requirements publication.	Yes			
2	7	4.43	“For higher level waste classifications, a greater degree of control should <del>usually</del> be applied.”	The term usually can be deleted here because higher level waste than VLLW should always be more controlled.	Yes			
2	8	4.49	“Records should be created that describe the wastes that are being managed. The records should include, <a href="#">with respect to the graded approach described in 4.43</a> , information on: a) The origin of the waste and the processes that generated it; b) The physical and chemical forms and properties of	For example Point c) is not always needed to be that detailed (e.g. for VLLW).		Yes – implemented in the first sentence of the following paragraph, “The range of information and the level of detail		

			the waste; c) The specific and total activity of radionuclides in the waste; d) The type of package; e) The dose equivalent rate at the package surface; f) The level of surface contamination on the package; g) The total weight of the waste; h) The package filling date or period.”			to be recorded should be specified in the management system, taking account of the graded approach.”		
2	9	4.50	“Information about the wastes <del>that is considered</del> important to safety, health, environmental, security, and quality should be retained and controlled for as long as any concern about the waste persists.”	At best all records should be kept. When considering of important parts maybe there is information what is not kept, but will be important in the future. (Lessons learned in Germany from the Asse 2 mine)	Yes			
2	10	4.89 d)	“Some waste emplacement activities (e.g. large spent fuel containers and super-containers).”	What are super-containers?	No change. The Supercontainer is the reference concept, adopted by the Belgian Agency for Radioactive Waste and Enriched Fissile Materials (ONDRAF / NIRAS), for the packaging of high level vitrified radioactive waste (HLW) and spent fuel (SF). Similar super-containers and dual-purpose casks have been considered in Finland, Japan and Sweden, the UK and the US.			
1	11	4.115	<a href="#">Research and development should also take into account international experiences and lessons learned from other countries.</a>	Lessons learned from other countries (also in research and development) always give good examples and can help in improving safety, especially	Yes. “The operator/licensee should take account of international experience and lessons learned from other countries, and should conduct or commission the research work necessary...”			

				with disposal facilities. This can be added here.				
1	12	4.138	“Before and during the process of designing a waste management or disposal facility, advantage should be taken of lessons learned and of knowledge and experience from comparable existing facilities and current projects, <a href="#">also including international experiences</a> .”	See also 4.115		“Before and during the process of designing a waste management or disposal facility, advantage should be taken of lessons learned, and knowledge and experience available from comparable existing facilities and current projects, including those conducted in other countries and internationally.”		
2	13	4.147	“The status of a waste item should be marked either directly on the item, or in documents that are traceable to the item, <a href="#">or at best both</a> .”	Optimization of safety and defense in depth.		It is not always best practice to mark the container as for example this can cause corrosion effects. “The status of a waste item should be marked either directly on the item, or in documents that are traceable to the item, or both, depending on the circumstances. Consideration should be given to the effects of any marking of waste packages on their degradation.”		
3	14	4.158	“h) Intended movements of waste packages within the disposal facility can be performed safely, preclude inadvertent criticality and optimize occupation-	Numeration is different than in 4.157. i) and j) are missing.	Yes			

Relevance: 1 – Essentials 2 – Clarification 3 – Wording/Editorial

			al exposures. <del>ki</del> ) Procedures are in place for:”					
3	15	4.167	“The period after closure of a disposal facility will be very long.”	Clarification: Please clarify what period. If the monitoring period is meant it is best to declare that. Or is it the period till the waste is no longer hazardous?				The text is clear.
3	16	4.173	“The management system should <u>provide</u> procedures for responding to monitoring information and for communicating with interested parties on monitoring information.”	Missing word.		include		
1	17	4.177	“The contract should be awarded to the most <del>qualified</del> <u>convenient supplier which fulfills all quality requirements</u> and the contract documentation should be recorded.”	If all quality requirements to the items or services are fulfilled it is not mandatory to choose the most qualified supplier.		Text revised		
1	18	5.6 b)	“[...] However, the nature of many radioactive waste management facilities is different to that of nuclear power plant. [...] <del>Because waste may be transferred to other organisations, the safety impact of a worker or organisation’s actions might not impact on themselves, but on the receiving organization.</del> ”	Please delete this point, because also in NPPs waste is transferred to other facilities and organizations (e.g. resins, decommissioning wastes) and therefore they have the same (maybe not in that extent but still) problems here.	Yes, typo corrected			The latter point is not deleted because it remains a valid point and the rationale given in the comment is unclear.
2	19	I.2	“The following activities should be considered when radioactive materials are introduced into the <del>plant</del>	Facility is more general.	Yes			

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			<a href="#">facility:</a> ”	To avoid confusion and mix-up with NPP’s.				
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