

ENISS comments on
DS 477 The Management System for the Predisposal and Disposal of Radioactive Waste (Step 7) 11 September 2017

COMMENTS BY REVIEWER				RESOLUTION ENISS			
Reviewer: ENISS		Page 1 of 9					
Country/Organization: ENISS		Date: 26 10 2017					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	General	<p>The guide combines predisposal with disposal but recommendations about these two types of installations may differ. A disposal facility is always a project of high political and public awareness. Stakeholder involvement and long lasting planning is needed. However, for a simple predisposal facility e.g. compacting drums for a few years, it will be a normal licensing procedure without stakeholder involvement and may not always require public interest in it. An unfamiliar reader of the standard will not be able to distinguish what is really recommended and what is according the graded approach not needed. A management system for a small facility will be rather limited if needed at all. A management program may be sufficient here.</p> <p>So we suggest to better structure the guide to ensure a graded approach between these two types of installations. Disposal facilities are seldom and unique and a subject of governmental care. Predisposal facilities are much more common and there may be hundreds or more such facilities worldwide. It would be wise to concentrate on them.</p> <p>A great number of provisions of this standard are not specific for predisposal or disposal. They should be deleted for the sake of the document.</p> <p>In many paras the senior management is addressed but it is completely unclear which management is meant. Especially predis-</p>				<p>The comments are understood but tend to go against the intention of the document to combine the two separate guides on the management systems for predisposal and disposal.</p> <p>Having said that, the need to apply the graded approach is highlighted more clearly at the beginning of the document.</p>	

		positional management is done in a great number of different facilities that fulfil only parts of the waste management. Disposal is completely different. It is nearly excluded that the same organization is doing the planning, construction and operation.				
		A number of amendments are listed below.				
2	1.14 c) Page 3	In general, the transfer of responsibility is preferred as this ensures that the body managing the waste is actually responsible for it	What is important is what it is written in the last sentence of the paragraph <i>Care should be taken to keep the responsibility clear and fulfilled at all times.</i> The deleted sentence is superfluous as it suggests that one situation is better.			Yes The comment seems to misunderstand the text. It is indeed preferable that the organisation actually managing the waste is responsible for its safety. Minor edit made to improve clarity.
3	1.14 d)	Because the responsibility for waste can change during its management, the waste generator and any organisation authorized to undertake waste management activities need to ensure that waste production is minimized and that the waste products they produce are compatible with the acceptance criteria <u>when they are known</u> of the receiving organization.	There may be situations where operators do not have the information		Separate sentence added, "In cases where waste acceptance criteria are yet to be defined, the organization managing the waste needs to ensure that waste products are as likely as possible to be acceptable for the next waste management step."	
4	1.21	The objective of this Safety Guide is to provide guidance on developing and implementing systems for management for safety during all steps	The guide should explain why transport is excluded and should provide references to the IAEA guid-	Yes		

		of radioactive waste management, including the pretreatment, treatment, conditioning, storage and disposal of radioactive waste and related activities, but excluding transport, for which guidance may be found in ref (XX).	ance on the management system for the safe transport of radioactive material; e.g. TS-G-1.4				
5	1.22	This Safety Guide does not address management system elements required for transport [14] or for other aspects such as security.	Security has to be part of the integrated management system and it is indeed mentioned several times in the document.	Yes			
6	1.25	This Safety Guide covers management systems for related processes and activities, including: ... b) <u>Radiological and physico-chemical</u> Waste characterization;	Necessary to stress on the importance of chemical characterization		“b) Waste characterization (e.g. to determine the radiological and physico-chemical properties of the wastes);”		
7	2.4	Senior management <u>of the waste generating organization</u> should at the time of waste generation ensure that adequate funding is available for the current waste management step and for subsequent waste management steps leading to and including disposal. Senior management <u>of the waste generating organization</u> should ensure that adequate resources are available to manage and ensure safety of the facilities and	The responsibility lies at the waste generator organization and not at the organization that manages waste.		“Senior management of an organization that generates waste should...”		

		activities.					
8	2.6	The senior management of a generator of radioactive waste should collaborate with the operator/licensees of waste management facilities <u>when they exist, and if not, interact with the regulators</u> to ensure that the waste can be safely managed through all steps of the waste management process including disposal.	This implies that those organizations exist and are known. At the moment in most countries there is no disposal facility and will not be in the near future.		“The senior management of a generator of radioactive waste should liaise with the relevant regulatory bodies and operators/licensees of waste management facilities...”		
9	2.7	The licensee should supply all the information that is required by the regulatory body . <u>Interaction about the extent of information needed from the Authorities and waste management agencies should be initiated as soon as possible before conditioning of waste.</u>	As some information and data about the waste might influence authorities’ decision or might be incomplete, it is important to exchange views as soon as possible.		“The licensee should supply all the information that is required by the regulatory bodies, and should initiate interactions with the regulatory bodies as soon as possible and before conditioning of the waste.”		
10	2.10	Governments and senior management of the operator/licensee should ensure that sufficient research and development is carried out to enable the safety of radioactive waste management facilities to be demonstrated, in line with Requirement 10 of GSR Part 1 [8]. This uncertainty should be recognized and managed by senior management . <u>the government; a.o. through definition</u>	GSR Part 1 requirement 10 applies to governments – see in particular 2.32		“Governments shall...” “This uncertainty should be recognized and managed.”		

		<u>of different (reference, conservative) scenarios.</u>	For illustrative purpose.				
11	2.11	Replace the shall-formulations by should except for quotations from requirements	Shall is forbidden for guides.	Yes			
12	3.1	Senior management should derive their own strategies and plans that are consistent with Government policies and strategies on radioactive waste management and that recognize the long term safety aspects that are involved in radioactive waste management. These strategies and plans should be consistent with <u>take into account</u> the expectations of interested parties and the public (especially the local population), wherever possible, and these strategies and plans should be communicated effectively and consulted upon. Similarly, radioactive waste management strategies should take full advantage of opportunities and synergies for international cooperation and experience where appropriate.	To be consistent with GSR Part 2, requirement 5 and 4.13 of the draft guide		“These strategies and plans should include appropriate means of considering in decision making the concerns and expectations of interested parties (including the public and especially the local population). These strategies and plans should...”		
13	4.6	In the management system, the organisational structure and the responsibilities, authorities, and decision-making procedures of the personnel and processes should be defined taking into account their safety implications. The organisational structure should be justified. The		Yes			

		identification of responsibilities is particularly important for waste management as the waste generator may hand over responsibility for its safe management to a variety of different waste management facility operators. The point at which responsibility changes should be clearly defined and documented within the management system, as should any relevant acceptance criteria for the change <u>ensuring safety is not compromised</u>	Changes might be manifold and do not need acceptance criteria but should ensure that safety is maintained.				
14	4.9 c)	c) Ensuring that process documentation is consistent; <u>and commensurate with the reality of on-the-field operations.</u>	Two-ways interaction is crucial between theoretical procedures and practical operations.		“Ensuring that process documentation is both internally consistent, and consistent with the facilities and activities;”		
15	4.10	Roles and responsibilities for safety and environmental protection in waste management and disposal will continue for a long time, and may change within waste management programmes and organizations. Responsibilities for waste may change between States (e.g. in accordance with agreements on the repatriation of waste following fuel reprocessing). Management systems for facilities and activities for waste	The demand for continuity is not adequate as long as the changes are managed adequately (see 4.6)			Yes	Comment slightly unclear, and possibly in error. Original text retained to emphasise the need for continuous management for safety.

		management and disposal should be designed to ensure continuity in managing the facilities and activities, and should be able to cope with possible changes, for example, in the following:					
16	4.13	h) provide an appropriate framework for actions and for establishing and reviewing <u>measurable</u> goals and objectives, <u>at all levels</u> ; o) <u>ensure that corrective actions are taken to address any deviation or near accident</u> ; p) <u>define preventive and remediation action/approaches to prevent the occurrence</u> ; q) <u>establishing series of indicators (KPI) for the measurement and follow-up of goals and objectives</u> ;	Policies must address all the levels in an organization so as everybody feels engaged. It is important that objectives are measurables and that policies consider potential deviations.		“h) provide an appropriate framework for action and for establishing and reviewing goals and objectives at all levels. Where possible, goals and objectives should be measurable;”		The suggested points o) to q) are implicitly included within point f) and, as drafted, they would be too detailed / prescriptive at this point in the document
17	4.24	The management system should consider the interdependencies among the various steps <u>and processes</u> in radioactive waste management from waste generation up to and including disposal.	Different processes can interfere in some steps.	Yes			
18	4.25	The generator of the waste should not treat, condition or store the waste in an inappropriate way or do anything that will make the waste more difficult to manage at a later stage in the waste management process <u>except in emergency situations</u>	Addition necessary to adjust priorities.		“With the possible exception of emergency situations, waste generators and organizations managing of the waste		

		<u>related to safety where the primary objective is to control the situation.</u>			should not treat, condition or store the waste or do anything that will make the waste more difficult to manage at a later stage in the waste management process.”		
19	4.26	The management system should describe the interactions and relationship between the steps in the radioactive waste management programme <u>activities</u> so that the safety and the effectiveness of the radioactive waste management steps may be considered in integrated manner.	Inadequate mixing of terms: a management programme is a defined technical term.	Yes			
20	4.49	Records should be created that describe the wastes that are being managed. The records should <u>be traceable and</u> include information on: ... i) <u>The methodology, data, and instruments used to determine the required characteristics.</u> <u>Periodical verification should ensure that records remain coherent with on-site information.</u>	Methodology followed to derive, for instance, radiological parameters is even important as results themselves. Coherence between theoretical and on-the-field information is vital.		Implemented in paras 4.49 and 4.50		
21	4.64	In a typical waste management process, each step is dependent upon	Flexibility is needed as for example full applica-	Yes	Minor edits		

		<p>the requirements for the activities in the previous step being satisfactorily met. Staff responsible for the operation of facilities in which radioactive waste is generated and/or managed should go through a specified training programme to ensure that they <u>sufficiently</u> understand the processes involved and the interrelationships of all steps in the process of waste management and the consequences of operator error for safety and environmental protection, and the generation of waste. Without such understanding, for example, a waste package could be produced that would not meet the acceptance criteria for subsequent processing, storage or disposal or that could present a hazard.</p>	<p>tion is not possible for an organization which is responsible for a single step in waste management, e.g. to store waste packages.</p>				
22	4.106 e	<p>The safety case should be reviewed periodically to ensure the validity of the contents, taking into account experiences, new technologies, changes to the regulations etc. The reviews should be documented. The management system should include processes and procedures for the safety case to be constantly updated <u>when necessary according to the review</u> as further information becomes available and for managing uncertainties and risks.</p>	<p>The update of safety case is not necessary when the review reveals no findings about safety</p>		<p>Over the long timescales relevant to waste management the availability of new technologies may be important.</p> <p>The word “constantly” has been deleted, but there is always new information</p>		

					which should be recorded and referred to in the safety case.		
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