

**TITLE: IAEA SAFETY STANDARD DS371 “Storage of Spent Fuel”
Draft Safety Guide for Member States Comments**

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Bobby Eid & Bernie White 13 Country/Organization: U.S. Nuclear Regulatory Commission Date: August 6, 2008			Page. 1 of				
Comment No.	Para/Line No.	Comments/ Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
General Comments:							
1	General	<p>DS371 relied heavily on IAEA safety requirements and guidance documents that are in a transition status (e.g., either in preparation, being revised, or superseded). Therefore, we propose that IAEA Secretariat considers the following recommendations before issuance of a final version of DS371:</p> <ol style="list-style-type: none"> 1. Conduct gap analysis and ensure harmony to reconcile inconsistencies with the newly developed safety requirements and key guidance documents. 2. Modify the text and references to correspond to the revised or updated documents. 3. Update references as necessary. 	<p>To establish harmony and consistency with the newly developed or revised IAEA safety requirements and key guidance documents. For example the following safety standards are being revised to be developed into new documents: SS115 [Reference 9] is being revised to DS379; GS-R-1 [Reference 12] to DS415; WS-G-2.4 [Reference 18] will be revised to DS404; NS-G3.3 [References 25] to DS422; and NS-G3.4 & 3.5 [References 26 and 27] are being revised to be incorporated into one document, DS417. Further, WS-R-2 [Reference 13] will be superseded by DS353.</p>				

2	General	The text and references should be revised to address omission and inconsistencies.	<p>The reasons for the proposed revision of the text and the references list are:</p> <ol style="list-style-type: none"> 1. Certain references cited in the text are either missing or inconsistent with the references list. For example, Reference [32] was cited under paragraph 6.163; however, it is missing from the references list. 2. The cited references in the text, starting with reference #20 and higher, do not appear to correspond appropriately to the listed references. For example, under paragraph 6.121 it was stated <i>"In addition to providing instructions and contingency procedures as described above, the operating organization should also produce an emergency plan in accordance with Ref. [20]."</i> In fact reference [19] <i>"Preparedness and Response for a Nuclear Radiological Emergency, IAEA Safety Standards Series, No. GS-R-2,"</i> should have been cited instead of the above. 				
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3	General	<p>We propose that DS371 safety guide appropriately address Quality Assurance (QA) aspects that are important to safety under each Section of the guide as necessary. For example, DS371 may cross reference the <i>“Management System for Facilities and Activities Safety Requirements of IAEA Safety Standards Series No. GS-R-3.”</i> This document includes safety requirement on QA which has superseded the <i>“Quality Assurance for Safety in Nuclear Power Plants and other Nuclear Installations, Code of Safety Guides Q1-Q14, Safety Series No. 50-C/SG-Q, IAEA Vienna (1996.”</i></p>	<p>QA is an important aspect in SF storage and management. DS371 guide lacks information on QA pertaining to organization and management of SF storage, design control, document control, tests and measurements, inspection and corrective action, as well as QA records and audits.</p>				
4	General	<p>DS371 guide should address aspects of safety analysis describing cask design and how the cask should be used to store the SF safely. The guide should also address cask certification for regulatory compliance. At minimum, the guide should have referred to other guidance documents addressing this safety topic.</p>	<p>DS371 lacks information on spent fuel storage casks regarding test and evaluation, certification for regulatory compliance, and overall casks safety analysis.</p>				

5	General	<p>The draft document needs to address integration of safety and security for storage of SF in a more explicit and distinct fashion (e.g.; the document may address, or cross reference, the code of conduct on safety and security, reporting of safeguard events, enforcement aspects, export/import of SF shipments coordination, cross communications, security checks, and physical protection of spent fuel in transit). Further, DS371 needs to be in harmony (as applicable to the scope of the document) with “IAEA Nuclear Security Series” launched in 2006, and currently in preparation (e.g., there are 15 Nuclear Security Series documents in preparation).</p>	<p>Integration of safety and security and cross reference to appropriate safety and security documents and references were lacking. The document has addressed security aspects focusing only on confidentiality of information, access control, and fences and gates functionality (paragraphs 6.7, 6.11, 6.17, and 6.93). Therefore, providing additional information and guidance on integration of safety and security would improve the guide for completeness, clarification, and implementation.</p>				
Specific Comments:							

1	1.1	<p>- Modify 2nd sentence “<i>Containment is ensured by the proper siting, design, construction and commissioning, followed by the proper management and safe operation of the spent fuel storage facility;</i>” to read: “<i>In addition, safety and security are ensured by the proper siting, design, construction, commissioning, proper management and safe operation, as well as decommissioning of the spent fuel storage facility.</i>”</p> <p>- Delete last sentence.</p>	Clarification. Sentence add no significant value to the para.				
2	2.1	Delete last phrase “... and is to be optimized with due regard to dose constraints.”	Meaning of this sentence is not clear in terms of optimizing dose.				
3	3.12	Revise the “and” at the end of para. (b) to be an “or”	Paragraphs (a) and (b) should not be accomplished at the same time				
4	3.15	Revise the first line to read “Providing periodic reports as required by the regulatory body in relation to the safety and security...”	In the Post-September 11, 2001, world security should be included along with safety in most places.				
5	3.15	Append “...and any reportable events that occur at the facility.) and remove first “and” in parenthetical	Both of the current examples are related to amount of spent fuel on site, but many other actions should also be reported.				
6	3.23	Revise first sentence to read “The operating organization should establish a process on how to authorize and make modifications to the spent fuel storage facility, storage conditions, or the spent fuel to be stored, that is appropriate given the	The process should also include appropriate methods of making modification. Additional clarifying edits should be made.				

