

Resolution of NUSSC Comments on DS397

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ALGERIA**TITLE: Safety Guide DS397 “Safety in the Utilization and Modification of Research Reactors”**

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: D. MERROUCHE		Page 1 of 1					
Country/Organization: ALGERIA		Date:06/05/2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	Para 2.17 & 2.18	May be it is better to move these paragraphs to section 6 related to commissioning for example.	Too much detail with regards to this section “resource management”.			X	These para’s are describing the general aspects for resource management as part of a management system for modification and utilization and is consistent with other safety guides on the safety of research reactors.

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: D. MERROUCHE		Page 1 of 1					
Country/Organization: ALGERIA		Date:06/05/2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
2	Para 2.28	Review and develop in more details this paragraph.	It is not clear at which stage of the project implementation this will be done; else it will be in conflict with the responsibility of the reactor manager.			X	This para describes the responsibility of the project manager which should be defined in the management system for modification and utilization. The structure is consistent with other safety guides on the safety of research reactors.

FINLAND

DS 397 Safety in the Utilization and Modification of Research Reactors

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer:		Page.... of....					
Country/Organization: Finland		Date:4.6.2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
	General	<p>There are several paragraphs related to the management systems which are for instance defining the management system in a different way than GS-R-3 and related safety guides.</p> <p>All of these paragraphs should be deleted and reference should be maid to GS-R-3.</p>				X	The para's are giving additional guidance to the requirements of GS-R-3. Were definitions are used they have been taken from GS-R-3; see for example 1.1; 1.4; 2.3; 2.5; etc. A reference to GS-R-3 is included as Ref 9. The para's facilitate stand alone reading of the Guide.
	General	There are only design references from security field, also other design references should be added				X	The security references, which are presented, are formal conventions and/or infcirc's, which could be compared with the safety requirements and safety guides which are also referenced. No design requirements

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer:		Page.... of....					
Country/Organization: Finland		Date:4.6.2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
							are referenced.
	Chapter 2	Delete the whole chapter in present form. Utilize the IAEA safety requirements and guides related to management systems.				X	The para's are giving additional guidance to the requirements of GS-R-3 and are in addition for clarification to GS-G-3.1 and consistent with NS-R-4 and dedicated to modification and utilization projects. They are added facilitating stand alone reading.
	5.7	Add to the first phase, Project plan Add to the Pre implementation phase to major project conceptual design phase. Add to the documentation, system descriptions more detailed than SAR, etc.		Yes			

FRANCE

TITLE: DS 397 – Safety in utilization and modification of research reactors – Draft 3 2010-04-15

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.			Ensure consistency of wording with future NS-R-1 (no more use of DBA and BDBA...)				The terminology used in DS 414 is still under discussion and will be made consistence after the final discussions in the SSCs
2.	1.4/6	After “license renewals”, add “, periodic safety review”	PSR have to be mentioned	Yes			
3.	2.3/5	Before “according to”, add “safely”	Clarification	Yes			
4.	2.4/1 st bullet	Before “regulatory body requirements”, add “national laws and regulations as well as”	Clarification	Yes			
5.	2.6/7	Replace “and performing” by “, performing, controlling or supervising”	Clarification	Yes			
6.	2.10/6 th bullet	After “tests”, add “including those required for commissioning”	Clarification	Yes			
7.	2.14/bullet list	Add a bullet after 1 st bullet: “ensuring operating organization personnel is competent to perform their assigned work”	To include item stated in 2.19 See also comment 12	Yes			
8.	2.14/2 nd bullet	Replace “aging” by “safety”	Typo ?	Yes			
9.	2.15	Delete 2.15	Superfluous		Combined with 2.3		

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer:		F. Feron		Page			
Country/Organization:		France/ASN		Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
10.	2.16/3	Delete “These personnel should receive general employee training and specific training in appropriate procedures and practices. Adequate time should be provided for this training. A waiver of training may be allowed for experienced and qualified personnel by their proving of their proficiency.”	Too much detailed	Yes			.
11.	2.16/end	Delete “Facility supervisors should review the work of these contractor personnel during preparation for work, at the job site during performance, and during acceptance testing and inspection.”	Duplicates 2.14			X	2.14 gives guidance that the resources should be made available and 2.16 gives guidance what should be done.
12.	2.19	Delete 2.19		yes			
13.	2.21	Delete 2.21	Too specific. What about other equipments safety related? Either delete or extend the scope not only to computer based systems...		Extended with equipment, tools and materials		

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
14.	2.24/2	Replace “recommendations and suggestions for improvement” “corrective actions and recommendations for improvement”	Improvements are welcomed but corrective actions should not be forgotten.		Added: action should be defined and taken. The term “Corrective actions” is normally used in relation with faults or non conformities.		
15.	3.2/4	Delete “for a specific research reactor”	Superfluous	yes			
16.	3.4/1 st and 2 nd bullet		Is it worth having 2 separate bullets?				Left for clarity
17.	3.4/4	Delete “in-site/out-site”	Superfluous				Left for clarity
18.	3.7/2	Add “significant” before “potential”	A safety assessment needs to be performed for any modification to determine its safety implications			x	Whether there is impact on safety is determined by the classification of the modification. If there is impact on safety then a safety assessment needs to be performed for any modification to determine its safety implications as specified under “reason”. No change is necessary.

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
19.	3.7	Locate 3.7 after 3.11	More logical order as 3.8 to 3.9 explains the classification.			x	When a system or experiments belongs to a safety class than more detailed analysis are required which is states in 3.7.
20.	3.13/1	Replace “by the reactor manager” by “by the operating organization according to its management system, involving as required the reactor manager”	To offer wider possibilities of review process			x	Conform to NS-R-4 this is the responsibility of the reactor manager
21.	3.16	Locate 3.16 before 3.12	More logical order as 3.12 to 3.15 detail the review process	Yes			
22.	3.19 3.20 3.21		Why are such recommendations not appropriate for major safety significance modification?	Yes	Is implicitly included in 3.12 but they have been added for clarity.		
23.	3.22	Replace “by the reactor manager” by “by the operating organization according to its management system, involving as required the reactor manager”	To offer wider possibilities of review process			x	Conform to NS-R-4 this is the responsibility of the reactor manager
24.	3.24/1	Delete “Many experiments and modifications fall into this category.”	Superfluous			x	Left for clarity
25.	3.27/1	Replace “specifying” by “classifying”	Consistency with 3.11	Yes			

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
26.	4.1/2 nd bullet	After “operated”, add “and decommissioned”	To consider decommissioning issues from the very beginning		A bullet “the experiment can be removed or decommissioned without compromising the safety of the reactor” has been added		
27.	4.4	At the end add (eventually modified to take into account this new device/modification)”	Clarification		Additional para added		
28.	4.6/1	Delete “The original design will typically have been based on a combination of shielding, ventilation filtration and decay to reduce radioactive releases, with associated monitoring instrumentation for radiation and airborne radioactive materials, and for all operational states and accident conditions.”	Superfluous			X	Left for clarity
29.	4.10/2	After “quality”, add “and effectiveness”	Clarification	Yes			
30.	Title before 4.24	After “Protection against external hazards”, add “and internal hazards”	Internal hazards have to be considered. See 4.24	Yes			
31.	4.24/3	Delete “The design should be reviewed by the appropriate specialist and the implementation of the recommendations should be filed.”	Too much detailed			X	Left to stress that specialists should be involved for the different events

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
32.	4.24/3	After “external” add “and internal”	To be consistent with 4.24	Yes			
33.	5.6/1 5.6/4	Replace “The requirement “by ”the need”	Alternate wording	Yes			
34.	Figure 1	After “REGULATORY BODY”, add “(as appropriate)”	The involvement of the regulator depends on the safety impact		Fig 1: <i>Stages of a modification or utilization project with major safety implications</i>		
35.	Figure	The “updating of the safety documentation” box should be before “installation” as such updating has to be prepared before the modification is installed. A “complementary updating of documentation” may appear in the post implementation phase to take into account commissioning results and as built status.	See 5.25		Additional box have been added		
36.	5.16/7	After “reactor normal operation” add “or accident conditions”	To take into account impact on accidents.	Yes			
37.	5.17	Delete “and if applicable the safety codes and design standards which have been selected for the project should be sent to the regulatory body for assessment and review.”	Superfluous			X	It is important that the safety codes and design standards which have been selected for the project are being discussed too.
38.	5.23/4	After “consequences”, add “and management”	Clarification.	Yes			
39.	5.25	At the end, add “and OLC”	Clarification	Yes			

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization:		F. Feron France/ASN		Page Date: 05 June 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
40.	6.15	At the end, add “They should be removed once installation is completed”	Clarification	Yes			
41.	7.3/2	Replace “include the description of the utilization or modification, taking into account the safety analysis performed, and it should also” by “to take into account the as built status and”	Superfluous	Yes			
42.	7.4	Replace 7.4 by “The updated safety documentation should be made available at the relevant location			Old 7.4 has been moved after (old) 5.25 and new 7.4 has been adapted		
43.	8.6	Delete 8.6	Such information should be in the safety report and I the OLC...			X	Besides the information in the SAR, more detailed information is needed for the operating staff.
/							

GERMANY

Draft DS397,,Safety in the Utilization and Modification of Research Reactors “, Version 3, 2010-04

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) (with comments of GRS) Country/Organization: Germany				Page 1 of 4 Date: June 02 th , 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	2.29/1-2	Special attention should be paid to The possible interactions between different modification or utilization projects, <u>which are being implemented or proposed, should be considered and analysed.</u>	The interactions between modifications may have a high impact on safety, therefore the consideration and analyse of interactions between them should be required.	Yes			
2.	3.22	The safety documentation <u>for changes with a significant effect on safety</u> for the project should <u>also</u> be reviewed by the reactor manager, with respect to safety, operability and compatibility with other experiments in the reactor and with reactor systems.	It is identical with 3.13, but this part is dealing with changes with a significant effect on safety, therefore it should be rewritten.		The subtitle refers to changes <u>with significant effect on safety</u>	X	
3.	3.28/1	Records of all such approvals should be kept, together with the related documentation.	Not necessary comma.			X	Discussed with technical editor
4.	4.19/1	By <u>selection of materials during the design of experiments following aspects should be taken into account material compatibility (...)</u>	The sentence should be rewritten for better understanding.			X	No clear improvement
5.	4.20/1	Special safety consideration for the design of experiments should be	The sentence should be rewritten for better	Yes			

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) (with comments of GRS) Country/Organization: Germany				Page 1 of 4 Date: June 02 th , 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
		taken for given to the (...)	understanding.				
6.	4.24/4	(...) the implementation of the recommendations should be filed <u>documented</u> .	Is this the intended meaning?	Yes			
7.	5.11/1	The applicability of existing relevant safety codes and national or <u>and</u> international Standards (...)	Not only national but also international standards should be taken into account.	Yes			
8.	6.9/2	The installation of the experiment or the modification should not commence until all approvals has been obtained <u>and</u> before the relevant staff (...)	The sentence should be rewritten for better understanding.	Yes			
9.	1.3/5; 1.9/2;1.10/ 2.1/4;2.6/4; Footnote 6/1;3.10/1; 3.12/2; 3.14/3; 3.21/1; 4.1/3;4.2/2; 4.3/1;4.4/2; 4.6/2; 4.11/1&3; 4.14/2; 4.15/4; 4.17/2; 5.21/8;	(...) <u>research</u> reactor (...) Mechanical interaction of experiments and the <u>research</u> reactor 4.26	It should be specified that activities described here refers to research reactors.	Yes			

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) (with comments of GRS) Country/Organization: Germany				Page 1 of 4 Date: June 02 th , 2010			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
	5.23/3; 5.29/1; 6.13/2; 6.16/3;8.1/3 ;8.5/1;8.11/2; 10.1/2;						
10.	2.16/1&2 2.23/2	Personnel, who (...) organizations, who (...)	Comma Missing		Discussed with technical editor, 2.16/1&2 left out.		
11.	3.11/4&9&14&18; 3.25/1&4; 4.4/3; 5.17/3;8.5/4	(...), <u>which</u> (...)	Comma Missing	Yes	Except 3.11/14 and 4.4/3		

JAPAN

Safety in the Utilization and Modification of Research Reactors DRAFT SAFETY GUIDE DS397

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: MEXT		Page.. 2 of.. 1					
Country/Organization: Japan		Date: 27 May 2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	CONTENTS and Title P9	CATEGORIZATION, SAFETY ASSESSMENT AND , APPROVAL OF THE MODIFICATION- AND <u>APPROVAL</u> OF UTILIZATION	Editorial		Made consistent with other titles		
2	Section 2	It is recommended that the entire description on the management system should be simplified, in order to be relevant to this Safety Guide.	Although the "management system" is important, the general description is unnecessary. The contents should be more specific to "Utilization and modification".			x	The general description is added facilitating stand alone reading
3	Para. 2.1 p.4	Change the order of the four items (the third must come before the second.) must be corrected, to be consistent with the former explanation.	Editorial			x	Order is consistent with sub titles
4	Para. 2.14 4 th line p.7	Supervising external personnel (including suppliers) performing ageing <u>any</u> related activities and ensuring that these personnel are adequately trained and qualified.	The activities of external personnel should not be restricted only to "ageing related".		performing ageing <u>safety</u> related activities		
5	Para. 2.16 5 th -6th lines p.7	Delete the sentence, "A waiver of training may be allowed for experienced and qualified personnel by their proving of their proficiency.", because it is natural and generally understood.	Editorial It is a matter of course.	Yes			

6	Para. 2.17 and 2.18 p.7	Delete these paras.	These paras are more specific to Sections 5 to 8, and hence are not necessary in this Section. (see comment No. 2.)	Yes			
7	Section 3	The same terminology of "utilization and modification" should be used consistently throughout this Section. Also, the words "experiments" and "changes" need to be defined explicitly.	Editorial, but strongly recommended to use the consistent terminology to avoid any confusion or misunderstanding. The word "project" is used in para. 3.1 and 3.11, but "changes" are used in para 3.12 and the subsequent paras.	Yes			
8	Para. 3.1 p.9	Delete the second sentence of para. 3.1, because it is too specific for the first para of this Section. If necessary, add to para. 3.11.	Editorial.			X	Clarification is needed in the beginning of the chapter
9	Para. 9.2 p.35	- the worst possible combination of equipment failures and human errors <u>course of the experiment including equipment failures</u>	Combination of equipment failure and human errors is overly conservative. A more general description is sufficient.			X	equipment failure and human errors is should be emphasized

PAKISTAN

TITLE: IAEA SAFETY STANDARDS ON SAFETY IN THE UTILIZATION AND MODIFICATION OF RESEARCH REACTORS (DS 397)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Noorul Amin		Page 1 of 1					
Country/organization: Pakistan/PNRA		Date: June 4, 2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted but modified as follows	Rejected	Reason for modification/rejection
1	Section 6	A Para “Each stage of the project should be clearly defined and should be understood by all persons involved. In particular, the transition points between stages should be formally acknowledged.” should be added in section 6.	As per Para 602 of SS-35-G2		The proposed text can be found in para 5.4		
2	Section 6	A Para “Testing of experimental devices and equipment prior to installation in the reactor shall be considered. Tests should be planned as part of the original design of the experiment or modification. The test plan should be reviewed by the reactor manager or his representative.” should be included after Para 6.17.	As per Para 616 of SS-35-G2		The proposed text can be found in para 5.26 (new 5.27)		

USA

Comments on IAEA Draft Safety Guide DS397 “Safety in the Utilization and Modification of Research Reactors” (Draft 3)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: USA Country/Organization: USA		Date: June 2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.9	<p>Add text to 1.9 to clarify the scope of the document similar to DS424 paragraph 1.23.</p> <p>Add text similar to DS424 paragraphs 3.62, 3.96, 3.97 and 3.98.</p>	<p>Paragraphs 3.30, 3.31 and 3.32 discuss changes to security systems and the need to follow Nuclear Security Series documents. Paragraph 2.1 notes the management system should include security. The scope section does not provide context to how security issues are covered in the document. Text in the document does not adequately address interface issues or change management issues associated with security.</p>		<p>See 1.1 for a similar text as 1.23 of DS 424</p> <p>Para 1.11 has been added to explain the scope/relation with modifications for security systems</p> <p>3.62 of DS424 has been added as 4.4.</p> <p>3.96, 3.97 and 3.98 are related to building</p>		

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: USA Country/Organization: USA		Date: June 2010					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
					infrastructure.		
2	7.3 / 4	“...process. The project manager should be responsible for such revisions. <u>The revision should be submitted to the safety committee and after approval should be submitted to the regulatory body for review and approval.</u> ”	As written, it appears that the reactor manager is the single approval authority.		The safety committee has been added in new para 7.4		
3	10.5 / 1-2	“The reactor manager should approve the proposal, including the safety analysis for implementation. <u>Based on the safety significance, i.e. major, significant, consideration should be given for regulatory body review and approval of the analysis.</u> ”	Safety significant items should be reviewed and approved by the regulatory body.	Yes			
4	Annex 1 / page 45	“Review <u>and approval by regulatory body required</u> Yes <input type="checkbox"/> No <input type="checkbox"/> ”	Safety significant items should be reviewed and approved by the regulatory body.	Yes			