

DS450 Decommissioning of Facilities

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Radiation and Waste Safety Division (RWSD) Country/Organization: Republic of Korea / Korea Institute of Nuclear Safety Date: May 6, 2013							
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	§5.5	For sites with more than one facility, a site strategy for decommissioning shall be developed to ensure that the interdependences of the facilities are taken into account in the planning for individual facilities which will lead to final decommissioning plans for each facility (e.g. by means of partial site release, if justified).	We may misunderstand §5.5 that multiple facilities can only be decommissioned partially for individual facilities. According to IAEA NW-G-2.1 (Policies and Strategies for the Decommissioning of Nuclear and Radiological Facilities), if more than one facility is located on a site, it is recommended to place the oldest facilities in a deferred decommissioning mode until the remaining facilities are closer to permanent shutdown. In order to resolve this confusion, “if justified” could be added as a provisory clause. <u>IAEA NW-G-2.1 §5.7 Multiple Facilities</u> <i>“Strategies for decommissioning are likely to be influenced when there are several nuclear facilities located on the same site. If more than one facility is located on a site, it may be beneficial to place the oldest facilities in a deferred decommissioning mode until the remaining facilities are closer to permanent shutdown. The ongoing operations at the</i>				

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			<i>site will ensure the safety and security of the facility. In addition, the deferral will make it possible for the decommissioning process to be more efficient because it will allow a workforce to freely move between the facilities.”</i>				
2	§7.16	If deferred dismantling strategy has been selected as a decommissioning strategy , ...	In order to keep consistency with §1.9				

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Reviewer: Peter Lietava, Ivana Davidová		Page 1 of 5					
Country/Organisation: Czech Republic/SUJB, ČEZ		Date: April 2013					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.1/6 line	... (except for a <i>disposal section of</i> a disposal facility for radioactive waste, for which the term 'closure' instead of 'decommissioning' is used).	For clarification and consistency with last sentence of 1.17 – supporting buildings and installations of disposal facilities will be decommissioned, but disposal sections (parts of disposal facility where the waste is placed) can be closed only.				
2	1.9/last line	Deferred dismantling allows for the processing of some radioactive material and its removal from the facility.	Misleading statement – it is not clear why only deferred dismantling allows for processing and removal of some radioactive material from the facility. The same statement can be made also for immediate dismantling.				
3	1.10/3-6 line	Entombment, in which all or part of the facility is encased in a structurally long lived material, is not considered a decommissioning strategy and is not an option in case of planned permanent shutdown. It may be considered a solution only under exceptional circumstances, (e.g. following a severe accident).	In general we agree with these statements, but there may be a need for clarification – are these statements in line with practice in some countries to entomb installations such as research reactors even if no “exceptional circumstances” have occurred? (US has entombed five reactors, with the entombment of two at Savannah River completed in 2011)				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
4	3.2/2 line	establishing a national policy for decommissioning and for the management of the resulting radioactive waste <i>also resulting from decommissioning activities</i>	There is no need to establish a national policy for decommissioning. The licensee has to develop its own decommissioning policy and strategy complying not only with national and international legal requirements but also with national policy on waste management. The licensee has to provide available details on waste streams from decommissioning into the national policy and vice versa once policy is established the operator has to comply with its goals. Within this framework the licensee can select any decommissioning policy for its installations.				
5	Requirement 8/2 line	The strategy shall be consistent with national policy on decommissioning and radioactive waste management.	See previous reasoning.				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
6	5.1/whole text	The preferred decommissioning strategy shall be immediate dismantling. However, there may be situations in which immediate dismantling is not a practicable strategy when all relevant factors are considered.	Misleading statement - we do not recommend to prefer only immediate dismantling as a decommissioning strategy. Both options are equivalent and only depending on site, facility and other circumstances the selection of one of them is performed. Moreover, there may be a situation when considering only one or two “driving” factors (it is not necessary to consider “all “ relevant factors) the immediate dismantling is not a practicable strategy.				
7	7.4/2-5 line	This initial decommissioning plan shall be required in order to <i>define decommissioning options</i> , demonstrate the feasibility of decommissioning....	The initial decommissioning plan for most nuclear installations has to be prepared several decades before the beginning of their decommissioning. As the final decommissioning strategy may not be clear at that time it is vital to develop and assess in the initial decommissioning plan several decommissioning options.				

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8	7.10/1-4 line	If a facility is permanently shutdown and/or is no longer used for its intended purpose, a final decommissioning plan shall be submitted to the regulatory body for approval within the time period two years after permanent shutdown, unless an alternative schedule is agreed by the regulatory body.	Unclear and unjustified requirement – it may be not clear what is an “intended purpose” (for NPPs only power generation or also e.g. RAW and SF management?). The second proposal for a change is based on following two reasons: - The 2 years period for the submission of final decommissioning plan seems to be unjustified (why not 1 or 3, ... years?) and not in line with the requirement 7.7 on preparation of final decommissioning plan in situation when it does not exist at the time of final shutdown. Unlike requirement 7.10 the requirement 7.7 does not contain prescribed time schedule for this action. However we agree that there shall be an agreement between the licensee and the regulatory body when to submit this document. - For EU member states according to the EU legislation the prerequisite for issuing the decommissioning licence is the ending of EIA process. To gain EIA statement it may take more than 2 years and the EIA process itself is in most countries fully independent on the regulatory body.				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
9	7.11/1 line	The final decommissioning plan and supporting documents shall include the <i>selected</i> decommissioning strategy; ...	See comment No. 7 + the final decommissioning plan has to contain the details and justification of the selection of preferred decommissioning strategy.				
10	8.6/1-3 line	Disposal shall be the preferred management option for Radioactive waste arising from operational activities that remains at the facility and radioactive waste that is generated during decommissioning <i>shall be disposed</i> [3]. If disposal capacity is not available, radioactive waste shall be stored safety in accordance with relevant requirements.	Misleading statement - disposal is the only option for the final management of all radioactive waste streams. But if no disposal facilities are available the RAW shall be stored in safe manner.				
11	7.7/5-6 line	...and adequate arrangements shall be made to ensure the safety of the facility until a final decommissioning plan can be implemented <i>the approval of the final decommissioning plan.</i>	For clarification and consistency with the requirement 6, 3.4, 10 th bullet, the responsibilities of the licensee shall include: ensuring that the facility is maintained in a safe configuration during transition and until the approval of the final decommissioning plan				

12	7.5/5 line	The initial plan shall be updated as necessary in the light of <i>relevant</i> operational experience gained, <i>available</i> lessons learned from the decommissioning of similar facilities.	It will be difficult for a licensee to have the obligation to take into account 1) all operational experience gained 2) lessons learned from decommissioning of similar facilities, if this information has not been made publically available.				
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STATE OFFICE FOR NUCLEAR SAFETY
Senovážné náměstí 9, CZ - 110 00 Praha 1, Czech Republic
Division of Radioactive Waste and Spent Fuel Management
Dr. Peter **Lietava**
Head

Praha, 11 April 2013
Ref. No: SÚJB/ONRV/8505/2013

Dear Mr. Ljubenov,

with respect to the e-mail message from WASSC co-ordinator dated 15 March 2013 we are submitting to you the comments to the draft DS450 of general safety requirements on Decommissioning of Facilities. The comments in tabular form are attached to this letter and have been send to you also by e-mail.

At this moment we strongly recommend to update the document to avoid any future misunderstandings and unnecessary administrative burdens. Therefore according to our opinion the document should be modified before the submission to CSS for endorsement.

I hope that our comments will contribute to the development of DS450 document, which we consider for crucial from the point of view of decommissioning of nuclear installations.

Sincerely yours

Attachment: Comments to draft DS450 (step 11, 14 March 2013)

Mr. Vladan **Ljubenov**
Waste and Environmental Safety Section
Division of Radiation, Transport and Waste Safety
Department of Nuclear Safety and Security
Wagramer Strasse 5
P.O. Box 100
A-1400 Vienna
AUSTRIA

Zpracovatel:	RNDr. Peter Lietava
Schválil:	RNDr. Peter Lietava
Výtisk č. 1	adresát
Výtisk č. 2	archiv
Řízená kopie č. 1	NJB
Řízená kopie č. 2	SOKJZ
Řízená kopie č. 3	zpracovatel

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11	7.7/5-6 line	...and adequate arrangements shall be made to ensure the safety of the facility until a final decommissioning plan can be implemented <i>the approval of the final decommissioning plan.</i>	For clarification and consistency with the requirement 6, 3.4, 10 th bullet, the responsibilities of the licensee shall include: ensuring that the facility is maintained in a safe configuration during transition and until the approval of the final decommissioning plan				

Title: Comments on DS450 Decommissioning of Facilities

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Ricardo Waldman Country/Organization: Argentina/ARN		Page 1 of Date: 30 April 2013					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.5 last two lines	Delete or improve taking into account the IAEA glossary the sentence: "Decommissioning actions are considered completed when the approved end state of the facility has been reached".	IAEA Safety Glossary definition of decommissioning: "Administrative and technical actions taken to allow the removal of some or all of the <i>regulatory controls</i> from a <i>facility</i> ...				
2	1.6 first line	"Planning for decommissioning begins at the design stage, it includes the collection at the commissioning and operation stages of information and data relevant ..."	Clarity and completeness				
3	1.18 third line	... areas of land that have become a contamination zone as a result of the normal operation ...	Contamination zone is defined in the IAEA safety glossary.				
4	3.3 fifth item	Giving interested parties, if so requested , an opportunity ...	Clarity				

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François		Date: 01/05/2013					
Country/Organization: France/ASN & IRSN		Pages 1/13					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	1.2	Aspects of decommissioning typically include planning for decommissioning, conducting decommissioning actions and terminating the authorization. There may be a limited period of transition between permanent shutdown1 and the time when authorization to begin decommissioning actions is granted.	The transition period shall be limited to encourage immediate dismantling strategy (see 5.1)				
2.	1.2	and terminating the regulatory authorization.	To be consistent with 1.15				
3.	1.5	'Decommissioning actions' are the procedures, processes and work activities (removal of SSCs, decontamination of SSCs...) as described	Clarification To include ideas developed in 1.9				
4.	1.3	In this document , 'Facility' means buildings, and their associated land and equipment, in which radioactive material was or still is produced, processed, used, handled or stored	To stress that it is not the IAEA safety glossary definition Clarification (to account for past operation).				
5.	1.4	Insert 1.4 in 1.2 : 1.2 Aspect of decommissioning..... authorization. <u>Decommissioning is performed using an optimized approach to achieve a progressive and systematic reduction in radiological hazards. Decommissioning is undertaken on the basis of planning and assessment to ensure the protection and safety of workers and the public and protection of the environment.</u> There may be a period of transition between permanent shutdown1 and the time when authorization to begin decommissioning actions is granted.	More logical order as next paragraphs defines words...				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
6.	1.6	Planning for decommissioning begins at the design stage and includes the collection of information and data relevant to decommissioning to facilitate future decommissioning, selection of a decommissioning strategy, performance of radiological characterization of the facility, preparation of a final decommissioning plan, <u>estimation of cost and the provision of financial resources for the decommissioning project,</u> submission of the plan to the regulatory body for review and approval and any activities for public communication and consultation required by national requirements.	The decommissioning financing must be taken into account upstream of the decommissioning operations				
7.	1.6	Planning for decommissioning begins at the design stage and <u>continues throughout the lifetime of the facility. It</u> includes the collection of information ...	For clarification that planning is a continuous process throughout the whole lifetime of the facility.				
8.	1.7	These activities are performed by <u>or under the responsibility of</u> the licensee. In parallel, oversight activities are conducted by the regulatory body.	Contractors are often involved in decommissioning activities				
9.	1.8	(i.e. <u>especially</u> meeting the end state criteria),	Too restrictive				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
10.	1.9	<i>Deferred dismantling</i> is the strategy in which, after removal of the nuclear fuel from the facility (for nuclear installations), all or part of a facility containing radioactive material is either processed or placed in such a condition that it can be put in safe storage and the facility maintained until it is subsequently decontaminated <i>and/or dismantled</i> . Deferred dismantling allows for the processing of some radioactive material and its removal from the facility shortly after the permanent shutdown but most decommissioning actions will be performed later.	Clarification				
11.	1.12	Unless otherwise defined, The terms used in this publication have the meanings ascribed to them in the IAEA Safety Glossary, 2007 Edition [2], where applicable.	Clarification Superfluous				
12.	1.16	This publication applies to nuclear power plants, research reactors, other nuclear fuel cycle facilities, facilities for the processing and storage of waste that is not from the nuclear fuel cycle, facilities for processing naturally occurring radioactive material (NORM), disused defence sites* and relevant medical facilities, industrial facilities and research facilities. <i>* In some cases the sites in question will have a designated site licensee and in other cases there is no longer a designated licensee and the State has responsibility</i>	disused nuclear defence sites have also to be considered				

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13.	1.19	Locate this paragraph after 1.17 which is also explaining what is out of the scope of the publication	More logical location				
14.	1.19	This publication does not address the remediation of areas contaminated by residual radioactive material arising from past activities that (1) were never subject to regulatory control or (2) were subject to regulatory control but not in accordance with the relevant requirements of the existing IAEA and national safety standards.	Clarification				
15.	1.20	The management of fresh nuclear fuel, spent nuclear fuel and radioactive waste generated during operational phase is not usually considered part of decommissioning. It is addressed as part of operations and is outside the scope of this publication. <u>However, waste management resulting from decommissioning operations are considered in this publication.</u>	Useful precision : Waste management during a decommissioning project is a key issue and is fully in the scope of this publication.				
16.	Requirement 1	Exposure during decommissioning shall be considered to be planned exposure situation and the relevant requirements of the Basic Safety Standards [4] shall be applied accordingly during decommissioning.	Clarification				
17.	2.5	Conducting and regulatory oversight of decommissioning by the licensee and the regulatory oversight shall be commensurate with the magnitude of hazards and risks (e. g. Safety Assessment, Emergency Response Arrangements).	Simplification				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
18.	2.6	The final decommissioning plan shall be supported by a safety assessment addressing the planned decommissioning actions and incidents or accidents that may occur or situations that may arise during decommissioning.	Clarification				
19.	2.7	A safety assessment shall be prepared by the licensee in accordance with Ref. [6].	Clarification				
20.	3.2 Bullet list	- establishing a mechanism to ensure adequate financial resources are available when needed for safe and timely decommissioning and for the management of the resulting radioactive waste.	“Timely” has been deleted. There is no reason to delete “timely” in the requirements as timeframe and milestones (5 years for the initial decommissioning plan, and 2 year for the final decommissioning plan are kept in the text.				
21.	3.2 (new)	<u>The responsibilities of the government shall include:</u> <u>(...)</u> - <u>granting authorizations for the decommissioning of facilities, containing the time frame and the main objectives of the decommissioning</u>	Government has the responsibility to give framework of a specific decommissioning project				

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Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
22.	Requirement 5	The regulatory body shall regulate all aspects of decommissioning, from the siting and design of the facility to the completion of decommissioning actions and the termination of authorization. The regulatory body shall establish the safety requirements for decommissioning, including for management of the resulting radioactive waste , and adopt associated regulations and guides, including management of the resulting radioactive waste , and shall take actions to ensure that the regulatory requirements are met.	Clarification to ensure requirements do also address waste management				
23.	3.3 1 st , 2 nd (new)	The responsibilities of the regulatory body shall include: — establishing criteria and the time frame for the commencement of decommissioning;	The regulatory body evaluates the final decommissioning plan in accordance with legal and regulatory requirements It does not establish criteria and timeframe for particular decommissioning project. See also comment on 4 th bullet				

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24.	3.3 3rd bullet	- establishing <u>requirements related to the criteria workers, environment and public protection</u> safety, security to be applied for the decommissioning of facilities, including criteria for clearance of material during decommissioning in accordance with national policy and criteria for end states for decommissioning and termination of authorization;	Necessary precision: the definition of end state criteria may not always remain on the regulatory body: the licensee may propose criteria, and then the regulatory body may approve them on a case-by-case basis but in consistence with the requirements it has established.				
25.	3.3 3 rd bullet	- establishing requirements for financial assurance for decommissioning and for a mechanism to ensure that adequate resources will be available when necessary for safe and timely decommissioning, in the case where the government has delegated this to the regulatory body;	See previous comment				

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26.	3.3 4 th bullet	<ul style="list-style-type: none"> - establishing requirements for planning of decommissioning, including; <ul style="list-style-type: none"> o identifying the typical content of the decommissioning plans and supporting documents for review or approval o establishing the review process for decommissioning plans and supporting documents (which are prescribed in national requirements) and the timeframe for such review; o reviewing the initial decommissioning plan and updates, review and approval of the final decommissioning plan and supporting documents, and review and approval of updates after the final decommissioning plan has been approved; 	To compensate for deletion of first bullet				
27.	3.3, 10 th bullet	The responsibilities of the regulatory body shall include: <ul style="list-style-type: none"> - (...) - establishing requirements and mechanisms for the collection and retention of records and reports relevant to decommissioning, <u>and to keep memory of a nuclear activity after the facility has been released from all the regulatory controls;</u> 	the regulatory body has to ensure that the memory of a past nuclear activity is maintained in order to intervene in case of any pollution discovered after the site has been released.				

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François		Date: 01/05/2013					
Country/Organization: France/ASN & IRSN		Pages 9/13					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
28.	3.4 6 th and 7 th bullet	The responsibilities of the licensee shall include: - (...) - notifying, as appropriate, the government or the regulatory body prior to permanent shutdown of the facility; - submitting a final decommissioning plan and supporting documents including end state criteria in consistence with national regulations or requirements for review and approval by the regulatory body, in order to obtain authorization for decommissioning;	The definition of responsibilities between government and regulatory body depend on national law: precision to clarify responsibilities. the end state criteria is proposed by the licensee which is approved by the regulatory body				
29.	3.4	<u>- identifying a destination for all waste arising from decommissioning actions and for any residual waste arising from the operation of the facility and processing the waste appropriately;</u>	To be replaced according to proposition on para 1.20				
30.	3.4	- ensuring that the facility is maintained in a safe configuration during transition <u>between permanent shut down and start of decommissioning operations at the facility</u> and until the approval of the final decommissioning plan;	For clarification, as transition is not explained until now (firstly explained in para 7.8). Insertion as in para 7.8.				
31.	3.4 bullet list	- managing the decommissioning project and performing <u>or having performed</u> decommissioning actions. <u>When actions are performed by contractors, the licensee shall ensure contractors oversight;</u>	Contractors are often involved See 4.3				

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François			Date: 01/05/2013				
Country/Organization: France/ASN & IRSN			Pages 10/13				
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
32.	Requirement 7	The licensee shall ensure that its integrated management system [8] shall be applied to covers all aspects of decommissioning.	As operator of the facility to be decommissioned, the licensee already has a management system.				
33.	4.1	An integrated management system shall provide a single framework for the arrangements and processes necessary to address all the goals of the operating organization [8], including the ones relevant to decommissioning . These goals shall include safety, health, environmental, quality and economic elements.	Clarification				
34.	4.2	An The integrated system for the management system shall enable planning and implementation of decommissioning actions shall be established as part of the licensee's organization with the prime goal of ensuring that decommissioning will be conducted safely.	Simplification				
35.	4.2	The reporting hierarchy and lines of authority of the management for decommissioning shall not create conflicts between organizations and activities that could compromise safety during decommissioning.	Superfluous (as it is part of the content of a management system)				
36.	4.3	The prime responsibility for safety shall remain with the licensee [1]. The licensee can delegate the performance of defined tasks to contractors and the integrated management system for decommissioning shall ensure that the work of contractors is appropriately specified , controlled and is conducted safely.	Clarifications				
37.	4.3	Could be located in 3.4					

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François		Date: 01/05/2013					
Country/Organization: France/ASN & IRSN		Pages 11/13					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
38.	After 4.6	Add a requirement: <u>“If the licensee changes during the lifetime of the facility, procedures shall be put into place to ensure the transfer of responsibility for decommissioning to the new licensee.”</u>	This requirement has completely been deleted. proposition to maintain this useful precision				
39.	Requirement 8	The licensee shall select a decommissioning strategy, which will form the basis for the planning for decommissioning. The strategy shall be consistent with national policy on decommissioning and waste management. <u>The preferred decommissioning strategy shall be immediate dismantling unless otherwise justified. The licensee shall demonstrate that, for the strategy selected, the facility will be maintained in a safe configuration at all times and will be decommissioned, and that no undue burdens will be imposed on future generations.</u>	The requirement 8, as it is written, is a precision Merge a part of 5.2 and 5.3. These paragraphs have a stronger meaning and have to be placed as the requirement 8.				
40.	5.3	The licensee shall select a decommissioning strategy, which will form the basis for the planning for decommissioning. The strategy shall be consistent with national policy on decommissioning and waste management.	The text of requirement 8 can replace 5.3				

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François			Date: 01/05/2013				
Country/Organization: France/ASN & IRSN			Pages 12/13				
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
41.	Requirement 9	Responsibilities in respect of financial provisions for decommissioning shall be set out in national legislation. These provisions shall include establishing a mechanism to provide and ensure adequate financial resources are available when needed to ensure safe and timely decommissioning.	See previous comment				
42.	7.8	Between the permanent shutting down of operations at the facility and approval of the final decommissioning plan, there may be a limited period of transition.	Cf. comment n°1.				
43.	7.8	“During this period, some preparatory decommissioning actions may be performed subject to authorization.” Could be transformed into a footnote	Information only.				
44.	7.9		7.9 is missing (numbering issue)				
45.	7.10	The licensee shall inform the government or the regulatory body, as appropriate , prior to permanently shutting down the facility. If a facility is permanently shut down and/or is no longer used for its intended purpose, a final decommissioning plan shall be submitted to the regulatory body for approval within two years of the cessation of authorized activities, unless an alternative schedule is prescribed by the regulatory body.	In link with §3.4				

TITLE: Decommissioning of Facilities (DS450)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: V. Nguyen F. Féron P. François		Date: 01/05/2013					
Country/Organization: France/ASN & IRSN		Pages 13/13					
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
46.	8.3 bis (new)	<u>During decommissioning, the licensee shall keep updated the list of structures, systems and components (SSC) important for safety. SSC important for safety can be progressively declassified as the decommissioning progresses, provided that the inspection and maintenance program is updated.</u>	Necessary precision. This list is a document on which the regulatory body can perform its inspection				
47.	Requirement 14 8.9	Add a new requirement <u>8.9 The licensee shall ensure waste traceability for all waste produced in the facility.</u> <u>The licensee shall keep a detailed and up-to-date account of the waste produced and stored in the facility, specifying the nature, characteristics, location and producer of the waste, the identified disposal processes and the quantities present and removed.</u>	Useful precision : characterization and waste resulting from decommissioning operations have to be considered in an appropriate management system in order to keep experience				
48.	9.2	The regulatory body shall review the final decommissioning report and shall evaluate the end state to ensure that the all regulatory requirements and end state criteria,	Typo				
49.	Requirement 15 § 9.4	<u>A system shall be established to ensure future owners is informed of the past existence of the facility in case of changement of the owner.</u>	Necessary precision: it is essential to ensure memory of the facility will be kept in order to allow an intervention of public power (government or regulatory body) in case of residual risk discovered after the termination of authorization				

Decommissioning of Nuclear Facilities (Draft Safety Requirements, DS450)

COMMENTS BY REVIEWER Reviewers: V.Bochkarev, A.Bukrinski, P.Stryapushkin; A.Sobolev, V.Lebedev, S.Mikheenko Country: Russian Federation Organizations: Scientific and Engineering Centre for Nuclear and Radiation Safety, State Atomic Energy Corporation "Rosatom"				Date: 30.01.2012 Page: 1				RESOLUTION			
Comment No	Para/Line No	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection				
1	1.9	1.9 ... - Deferred dismantling (sometimes called safe storage, safe store or safe enclosure) is the strategy in which all or part of a facility containing radioactive material is ...	The definition «Deferred dismantling » contains the phrase (requirement) «removal of the nuclear fuel from the facility (for nuclear installations)». It means that nuclear installation operator has to remove a nuclear fuel out of facility. This requirement is not consistent with Paragraph 8.8, which states that nuclear fuel may be present at the facility during decommissioning. Paragraph 8.8 should consider also the removal of nuclear material (which may remove without dismantling of facilities) from other objects, such as research laboratories, etc.								

COMMENTS BY REVIEWER				RESOLUTION				
Reviewers: V.Bochkarev, A.Bukrinski, P.Stryapushkin; A.Sobolev, V.Lebedev, S.Mikheenko				Date: 30.01.2012				
Country: Russian Federation				Page: 2				
Organizations: Scientific and Engineering Centre for Nuclear and Radiation Safety, State Atomic Energy Corporation "Rosatom"								
Comment No	Para/Line No	Proposed new text		Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
2	Requirement 5:	Requirement 5: Responsibilities of the regulatory body The regulatory body shall regulate all aspects of decommissioning, <i>for all stages of the facility's lifetime</i> from the siting and design of the facility to the completion of decommissioning actions and the termination of authorization. ...	It is more exactly.					
3	1.7		Draft considers all decommissioning actions specified in Section 1.7, except non-radioactive waste managing. It's seems to be better to include in the draft a new section how non-radioactive waste management has to be carried out.					
4	1.11		Entombment is considered a solution only under exceptional circumstances. Paragraph 1.1 should describe the criteria for exceptional circumstances and have an extensive list of exceptional circumstances.					

Finland's comments on DS450 (GSR Part 6)

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Country/Organization: Date: 30.4.2013		STUK, Finland	Page.... of....				
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.1.	Add reference to the safety standard(s), at least SSR-5, which apply to closure of disposal facility.	Addition.				
2	8.3	...decommissioning techniques shall be selected such that the protection of workers, public and the environment is optimized, and the generation of waste is minimized, <i>and negative impacts on storage or disposal of waste is minimized.</i>	Techniques shall be selected so that they do not jeopardize planned storage or disposal of waste. E.g. decontamination of components might allow disposal at more economical disposal repositories but if the used technique also weakens the material (making radionuclides more ease to release), this might not be the case any more.				
3	9.1	A final decommissioning report shall be prepared by the licensee <i>and submitted to the regulatory body for approval</i> to demonstrate that the end state of the facility as specified in the approved final decommissioning plan has been met. This report shall be submitted to the regulatory body for	The beginning of paragr. 9.2. repeats the tasks of the regulatory body.				

4	General Comment	<p>review and approval.</p> <p>The security and safeguards aspects seem to be missing in many places of this safety standard. Please recheck and modify e.g.:</p> <p>1.22. Security <u>and safeguards</u> aspects have to be considered during decommissioning, but are out of the scope of this publication.</p>	<p>The IAEA Safety Series SF-1 (Fundamental Safety Principles) has requirements that safety and security must be implemented in an integrated manner. Also, General Safety Requirements (GSR) Part 1 (Government, Legal, and Regulatory Basis for Safety) requires that in the government and legal framework Safety, Security, and NMAC have adequate interfaces.</p>				
5	Reference list	Insert SF-1 to the reference list.	See the previous comment.				

DS450 Safe Decommissioning of Facilities

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Secretariat of Nuclear Regulation Authority Page 1 of 1 Country/Organization: Japan Date: 7, May 2013							
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.6./L1	Planning for decommissioning begins at the design stage and includes <u>preparation of an initial decommissioning plan with the license application for operation</u> , the collection of information and data relevant to ...	<u>Clarification</u> An initial decommissioning plan should be also defined.				
2	7.9(p.13)	Paragraph 7.9 is missing.	Editorial error.				
3	7.15(p.18)	Paragraph 7.15 is missing.	Editorial error.				

Draft DS-450 Decommissioning of Facilities (STEP 11, 14 March 2013)

COMMENTS BY REVIEWER

Reviewer: Denise Varley

Country/Organization: United Kingdom/Office for Nuclear Regulation

Date: 1 May 2013

Comment No.	Para/Line No.	Proposed new text/Comment	Reason
1	General comment	The document has improved in clarity from the previous draft (Step 8).	
2	General comment	Although not all comments raised by the UK were incorporated in the revised draft, there are no significant issues of concern arising from the comments that have not been addressed.	
3	General comment	Consider whether there is sufficient clarity on the definitions of initial and final decommissioning plans.	We raised a number of comments on this issue in our review of the Step 8 draft document. There is greater clarity on this issue in the Step 11 draft but this does not emerge until Requirements 10 and 11.
4	General comment	Consider whether the document should refer to Post-Operational Clean-out.	We raised this issue in our comments on the Step 8 draft document but it was not addressed. This would be part of the transition process and is of benefit in reducing the hazards associated with later decommissioning.
5	Paragraph 1.6	Change end of last sentence to read "...public consultation in accordance with national requirements"	This removes repetition of requirements.
6	Paragraph 1.17	Add comma after "However" in last sentence.	Editorial change.
7	Paragraph 3.2, 3 rd dash point	Remove extra space between "of" and "regulatory"	Editorial change.
8	Paragraph 3.3, 4 th dash point	Insert comma after "approval"	Editorial change.
9	Paragraph 3.3, last dash point	Replace semi-colon with full stop.	Editorial change.
10	Section 7 title	Remove second "l" from "facililty"	Typographical change.

TITL: USA Comments on IAEA Draft Safety Requirements DS450: “Decommissioning of Facilities – General Safety Requirement Part 6

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: USA (Contact: Bobby Eid: Bobby.abu-eid@nrc.gov) Page 1 of 4 Country/Organization: USA/US Nuclear Regulatory Commission Date: May 17, 2013							
No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	Multiple	Consider whether the use of “licensee” is correct	Throughout the requirements, the term licensee is used, even though a licensee is only one type of authorization, and in the IAEA definition of licensee in the glossary is specific to the organization granted a license.				
2.	Para 1.5, Page 1	Modify Para 1.3 to read: ‘Decommissioning actions’ are the procedures, processes and work activities as described in the approved final decommissioning plan and/or activities after shut down to ensure containment and safety.	Completeness: Operator may conduct decommissioning activities essential to safety after cease of operation and reporting such activities to the regulator in a specific post-shut down report. These activities are considered by certain countries as part of the decommissioning process such that allotted decommissioning funds				

			can be used.				
3.	Para 1.8, Page 2	At the end of Para 1.8, add the following: Public inputs are to be addressed before completion of decommissioning activities.	Completeness: Stakeholders and public inputs are significant in the decision-making for end-state, particularly when the end-state of the decommissioning facility is selected under the restricted release option.				
4.	Para 2.2 Page 5, line 3	However, if the incident or the particular situation is of such a nature as to warrant cleanup, or to require containment of releases under emergency situation , other IAEA safety standards apply [4, 11].	Clarity & Completeness				
5.	Para 3.3, Page 7	Add a new bullet after bullet 3 to read: Establishing requirements to conduct adequate survey to identify all radiological contamination at the facility.	Completeness to ensure having requirements for adequate characterization/survey.				
6.	Para 5.5, Page 11	Modify Para to read: For sites with more than one facility, a site strategy for decommissioning shall be developed, in consideration of characterization and environmental monitoring data ,	Clarity and flexibility to use environmental monitoring and characterization data for identification of potential common sources of contamination before partial site release.				

		to ensure that the interdependences of the facilities are taken into account ...					
7.	Page 14, Para Numbering	After Para 7.14 there is no Para 7.15. Therefore, Para numbering needs to be changed.	Editorial and sequence of Paras.				