TLE: DPP-539 Licensing Process for Nuclear Installations

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Nasir Mughal Country/Organization: Pakistan /PNRA/CNS			Page 1 of 1 Date: May 12, 2022				
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	Section 3	The revised version of SSG-12 need to incorporate the IAEA recommendations/OEF related to nuclear installation.	The title and scope of the document (SSG-12) is related to nuclear installation. In justification section(section 3), the documents referred are related to nuclear power plants. It is proposed that in justification section other IAEA documents consider the installation other than nuclear power plants (e.g. SSR-3) which have been referred in Section 6 may also be considered to make it consistent with the title of SSG-12.			X	The title and the scope refer to all nuclear installations, not only to NPPs. The justification section lists the main reasons why the document, in our view, needs to be revised. Section 6 lists all the Safety Standards which are deemed to interface with SSG-12. Changes in those published after 2010 (such as SSR-3) will be considered.

COMMENTS BY REVIEWER Reviewer: Page 1 of 1 Country/Organization: Algenia Date: May 12, 2022				RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.		In paragraph 6 is given a non-exhaustive list of IAEA safety standard series and other document publications that have an interface with the document under development (DS539). Also let me suggest adding the 2 following documents: **1. <u>SSR-1</u> Site Evaluation for Nuclear Installations** **2. <u>SSG-24:</u> Safety in the utilization and modification of research reactors**	The adequacy and suitability of the site shall be assessed and submitted to independent review and shall be confirmed for the lifetime of the planned nuclear installation. The adequacy and suitability of the site may be subject to evaluation and authorization by the regulatory body. The processes for modifications and utilization should review assessment and approval. To implement utilization or modification, consideration should be given to addressing all relevant regulatory	X			The proposed documents will be added in Section 6.

			requirements, mainly for modifications or experiments with a major effect, or a significant effect on safety. Such modifications or experiments should be submitted to the regulatory body for review and approval in accordance with the regulatory requirements, and can affect the operating license or the license documentation, and an appropriate re-licensing process should be applied.				

COMMENTS BY REVIEWER Reviewer: Country/Organization: UK/ONR (NUSSC) Date: May 2022			Page 1 of 1	RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
UK has no issues with the proposed scope and ambition of the update. However, UK has a comment regarding the proposed schedule for update, as noted below.							
1	Page 5, Production Schedule	Review production schedule in the context of SMR Regulators' Forum and IAEA NHSI initiatives	Recommendations from the SMR Regulators' Forum are cited as one of the reasons for this update. The UK understands that the SRF's Licensing Working Group is currently in its "Phase 3" work programme, considering: collaboration on design assessments, assessment of organisational capability for licensing, and potential international legal constraints for SMRs . This work is not due to complete till end of 2023. In addition, the IAEA has launched its "Nuclear Harmonization and Standardization Initiative". Is it possible to produce a meaningful draft in Q2 of 2023 if these relevant activities are still ongoing?	X			All the enumerated activities are very relevant to the completion of the revision, and it will be very challenging to capture the best practices in the Safety Guide. The schedule was shifted 2Q (6 months). Yet, it is expected that the first drafts may have gaps, as the input from the NHSI would be work in progress. If deemed necessary, the document production schedule will have to be extended even more.

COMMENTS BY REVIEWER Reviewer: Aino Obenius Mowitz, Ninos Garis Page.... of.... Country/Organization: Swedish Radiation Safety Authority Date: 2022-05-13				RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	Section 5, p. 3	(DPP DS537 ~~under development~~ **Safety demonstration of ~~first of a kind technology~~ innovative technology in reactor designs**)	Clarification is needed if the reference intended is meant to be DS537?	X			The reference to DS537 is correct. The reference was not included at the time of the draft as DS337 was being considered in parallel by the Stanrads Coordination Committee.

COMMENTS BY REVIEWER Reviewer: Japan NUSSC member Page of 1 Country/Organization: Japan / NRA Date: 13 May 2022				RESOLUTION			
No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	general	Many inputs for justifying revising SSG-12 are presented in section 3 "JUSTIFICATION FOR THE PRODUCTION OF THE PUBLICATION, however, these show the needs for revising, and do not show any specific items to be revised. Please show in this DPP some examples to be revised for each input described in section 3. (i) Which element is superseded by GSG-12 and GSG-13? (ii) What lessons learned in licensing in embarking countries? (iii) Which element in licensing process described in SSG-12 is to be changed in licensing SMR? (iv) Concerning interface between safety and security, show relationship of this guide with proposed DPP-DS533. (v) Concerning the consideration of safeguards aspect, why is it placed as activity in the pre-licensing process?				X	The details on how to address the changes due to the interface of the document with documents published after 2010 will be determined during the Consultancy meetings to develop the drafts.
2.	4.OBJECTIVE 2nd para 5.SCOPE 5th para	(4. OBJECTIVE) It is expected that the revised Safety Guide will promote consistency … and collaboration among regulatory bodies … (5. SCOPE) New Appendixes will be added to the Safety Guide with recommendations that will support regulatory bodies from different States involved in the licensing of the same installation to collaborate ..	Collaborative activity among regulatory bodies in licensing process had been discussed internationally for specific project in the past and its importance still remains today especially for embarking countries. DPP describes its importance but does not present any specific topics to be addressed in this proposal, it is suggested to describe some topics to be addressed in this revised guide, such as, for example, a process for internationally or bilaterally acceptance of a NPP, or SSCs or fuels certified in its supplier country, a process for settlement of internationally acceptance of design and construction code, and some others.			X	Specific details on colaboratuion among regulatory bodies will be determined during the document development process and after asessing some international practices and the results of discussions at the SMRRF and outcomes of the Nuclear Harminzation and Standarization Initiative.

	COMMENTS BY REVIEWER Reviewer: **Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)** (with comments of BASE and GRS) Pages: 3 Country/Organization: **Germany** Date: 12.05.2022				RESOLUTION			
Rele-vanz	Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	1.	Chapter 3. Add new issues	….. 6) Changes needed to provide suitable recommendations for the application of the Safety Requirements to the licensing of research reactors. - adequate grading of recommendations for research reactors with low risk potential, critical and subcritical assemblies -adequate grading of recommendations for any adjoining facilities, e.g. radioisotope production facilities, hot cells 7) Changes needed to provide suitable recommendations for the application of the Safety Requirements to the licensing of fuel cycle facilities. 8) Changes needed to provide suitable recommendations for the application of the Safety Requirements to the licensing of interim waste storage.	The proposed addition of lessons learned in the implementation of the licensing process for nuclear power plants by embarking countries and specific recommendations for licensing of SMRs (point 2 and 3 of Chapter 3) can help in an effective licensing process of diverse facilities and is highly appreciated. However, since the Guidance document is dedicated to all kind of nuclear installations, all these should also be explicitly considered in this new document (not only implicitly as it is the case in the current document). See also Chapter 5 where all facilities that supposed to be covered in this publication are listed. Unfortunately, SSG-12 makes no differentiation and refers solely to licensing of NPPs.	X	4) The need to provide additional guidance on use of a graded approach in the application of safety requirements on licensing of research reactors, their ancillary facilities, and subcritical assemblies in accordance with their potential hazards. 5) The need to provide additional guidance on the use of a graded approach in the application of safety requirement on licensing of nuclear fuel cycle facilities.		Radioisotope production faciliaite and hot cells in most cases are stand alone facilities not part of the RR, mostly characterized as radiochemical facilities, except when irradiated fuel target are used. Waste management facilities in general, are not nuclear installation. Spent fuel Storage are covered by fuel cycle facilities.
1	2.	Chapter 5.	The revision of the Safety Guide expands the content to include suitable	This guidance document is dedicated to all kind of			X	The existing guide covers all

	COMMENTS BY REVIEWER Reviewer: **Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)** (with comments of BASE and GRS) Pages: 3 Country/Organization: **Germany** Date: 12.05.2022				RESOLUTION			
Rele-vanz	Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
		Line 11	specific recommendations for different types of nuclear installations as defined in the IAEA Safety Glossary as well as updated considerations of newly proposed reactor deployment models,	nuclear installations, please complete respectively. See also our comment above to Chapter 3.				nuclear installations as defined in the glossary already.
2	3.	Chapter 5 Line 18	Consideration will be given to address the necessity of changes or adjustments to the licensing process in the case of licensing of "F~~f~~irst of a K~~k~~ind" (FOAK) reactors (DPP under development **Safety demonstration of first of a kind technology in reactor designs**).	Please make it clear that abbreviation FOAK refers to "First of a Kind"	X			
2	4.	Chapter 5 Line 21	New Appendixes will be added to the Safety Guide with recommendations that will support regulatory bodies from different States involved in the licensing of the same type of installation to collaborate to reduce regulatory duplication, while maintaining independence and levels of due diligence.	The original text could be understood that several licensing authorities are involved in licensing of a specific installation (SMR) at a specific site. Please clarify.	X			Text revised as suggested.
2	5.	Chapter 6. Line 15 Line 34 Line 36	9) SSR-2/2 (Rev. 1) - Safety of Nuclear Power Plants: Commissioning and Operation (2016, being updated, DS532) 21) SSG-10 - Ageing Management for Research Reactors (2010, being updated, DS509) 23) SSG-20 – Safety Assessment for Research Reactors and Preparation of the Safety Analysis Report (Rev. 1, 2012, being updated, DS510)	We suggest the same form /status for all documents in this list (compare with documents listed under (6), (17), (30)). Furthermore, some updates are in Step 12 already and might be published in near future.	X			Text revised as suggested.

	COMMENTS BY REVIEWER Reviewer: **Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)** (with comments of BASE and GRS) Pages: 3 Country/Organization: **Germany** Date: 12.05.2022				RESOLUTION			
Rele-vanz	Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
		Line 38	24) SSG-25 - Periodic Safety Review for Nuclear Power Plants (2013, being updated, DS535)					
2	6.	Chapter 7. Line 12	APPENDIX III: SPECIFIC GUIDANCE FOR LICENSING OF ~~OTHER TYPES OF~~ NUCLEAR INSTALLATION OTHER THAN NPPs AND SMRs (IF ANY)	It is unclear what is meant by “other types of nuclear installations” - Other than SMR (Appendix 2) or other than Nuclear Power Plants? Please clarify	X			

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: SSTC NRS Country/Organization: Ukraine			Page 1 of 1 Date: 20 April 2022				
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	5 (Scope) / 3-9 page 3 . 7 (Overview)	The revision of the Safety Guide expands the content to include updated considerations of newly proposed reactor deployment models, in particular, deployment models for SMRs, and will address matters such **as licensing specifics for one-module and multiple module SMRs,** factory fuelling and transportation to the final destination in a different State. "Deployment model" is understood as the approach taken for the deployment of a NPP that will impact the general ownership of the NPP, the responsibility for the lifetime of the NPP including operation, decommissioning and management of spent fuel and radioactive waste, and the responsibility for liability for nuclear damage in case of a nuclear accident.	There are differences in licensing and commissioning between one-module SMR (like Holtec SMR-160) and multi-module SMR (like NuScale SMR). Licensing of one-module SMRs is almost the same as for usual NPP units. Otherwise, licensing and commissioning of multi-module SMRs may probably be different: licensing of all modules together or module by module. The design specifics such as interconnections between modules should be also considered. Based on this, Chapter 3 and Appendix II should consider the issues mentioned above	X			Agree. All special features of deployment modes should be considered in Chapter 3, and particularly in Appendix II of the revised guide.

COMMENTS BY REVIEWER Reviewer: M-L Järvinen, K. Hämäläinen Page.... of.... Country/Organization: Finland/STUK Date:12th May 2022				RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	6. Place in the overall structure of the relevant series and interfaces with existing and/or planned publications	6) GSR Part 5 – Predisposal Management of Radioactive Waste (2009, DPP for revision under development)	Reference to GSR Part 5 connects licensing process to the radioactive waste management front-end but the back-end (disposal) is not referred in the list. When licensing a nuclear installations, the waste management has to be taken into account holistically from the beginning of the licensing process. Could you please clarify the connection of the licensing process of to waste disposal.	X			The WM programme for the NI is thoroughly consider in the licensing process in SSG-12 and it will continue to be in the revised version. SSR-5 Disposal of Radioactive Waste was added to the list of publications to address radioactive waste management holistically to the back-end.