Form for Comments
DS 532 – Safety of Nuclear Power Plants: Commissioning and Operations

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
Comment No.	**RC**	**Para/Line No.**	**Proposed new text**	**Reason**	**Accepted**	**Accepted, but modified as follows**	**Rejected**	**Reason for modification/rejection**
1 Sweden	RASSC	Para 6.1 – 6.7	Include in para 6.7. The radiation protection programme should be consistent with GSR part 3.	Requirement 29. Includes radiation protection measure and highlight some items in a radiation protection program. It is unfortunate that it is not clarified that several parts of GSR Part 3 apply to this in the context and that limited issues are included A radiation protection program should contain so much more.			x	There is a clear reference to GSR Part 3 "The operating organization shall ensure that the radiation protection programme complies with Requirement 24 of GSR Part 3"
2 Sweden	RASSC	6.6	The radiation protection programme shall include the health surveillance of site personnel who *are or could* ~~may~~ be occupationally exposed to radiation ~~in order to ascertain their physical fitness~~ and give advice in cases of accidental exposure or overexposure. ~~This health surveillance shall consist of a preliminary medical examination followed by periodic checkups~~		x	Are or may be added. Other proposed changes not accepted as no reason for deleted parts of the text give in the Comments column. Health surveillance is an import part of RPP.		

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3 Republic of Korea (ROK)/Korea Institute of Nuclear Safety (KINS)	WASSC	Page 42/ Para 5.52 Line 1	The following is suggested. (before) The hazard management programme shall include: (after) The hazard management programme shall include the purpose, scope and the followings: Consideration of the internal and external hazards such as toxic or explosive gases, fire, etc. identified by the safety assessment.	o I think that the requirement 28 (Hazard Management) is new in DS532. It is necessary to be elaborated on the new one. The proposed text could be an example.	x	5.52. The hazard management programme shall include the purpose, scope and the following: (a) Arrangements for prevention, monitoring, and mitigation of the impacts of internal and external hazards such as toxic or explosive gases, fires and other hazards identified by the safety assessment , including credible combinations of hazards;		
4 Republic of Korea (ROK)/Korea Institute of Nuclear Safety (KINS)	WASSC	Page 43/ Line 4	The following is suggested. (before) (e) Control of materials and housekeeping (see Requirement 28): (after) (e) Control of materials and housekeeping (see Requirement 15):	o I think that it is a typo.	x			
5 Pakistan	NUSSC	Para 2.4	The management system shall integrate all the elements of management so that processes and activities that might affect safety are established and conducted coherently with other requirements, including requirements in respect of leadership,	The phrase “other requirements” is broad; context of competing priorities may be added for further clarification.			x	As this is a Safety Requirement standard, I propose to keep the original wording and

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			protection of health, human performance, protection of the environment, security and quality, and so that safety is not compromised by **~~other requirements or demands.~~ other demands, such as production goals or financial constraints.**					further details would be found in the SSG.
6 Pakistan	NUSSC	Para 2.6	The management system of the operating organization shall include provisions to ensure long term access to knowledge of the plant design, **siting,** manufacture, construction and **operation** throughout the lifetime of the plant **including life extension, and decommissioning phases."**	Long term knowledge access shall also include the provision of knowledge management generated during siting and operation as well. Lifetime of the plant needs clarification e.g. operation, life extension and decommissioning	x			
7 Pakistan	NUSSC	Para 2.7	The management system of the operating organization shall contain specific provisions for the procurement, supervision, use, **~~and~~** maintenance **and qualification** of any commercial grade **~~components~~ items** and any first of a kind components and services that could affect the safety of the nuclear power plant.	The basic attribute of commercial grade item is to perform the required safety function which will be ensured by qualification. The term "items" is more consistent with regulatory usage and international existing standards (e.g., EPRI guidelines, NQA-1-	x			

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				NUSSC 2015, and NRC RG 1.164).				
8 Pakistan	NUSSC	Requirement 2, Para 2.9(d)	Processes for obtaining technical and administrative services (from on-site organizations and off-site organizations, including contractors) and the use of associated resources **considering differences in design and technology** need to be explained. For sites with shared safety related resources (e.g. sites with multiple units or with more than one operating organization), the arrangements for the use of such shared resources shall be clearly defined.	Reference is made to Requirement 2, Para 2.9(d), concerning the provision of technical and administrative services by on-site and off-site organizations. Clarification is requested on how this requirement can be practically implemented, considering the following challenges: • Differences in Nuclear Power Plant (NPP) designs • Variations in technology • Differences in applicable codes and standards of different units due to different design, etc. In light of these complexities, it is suggested to further clarify the requirement.	x			
9 Pakistan	NUSSC	Para 3.1	The operating organization shall clearly define the requirements for qualifications and competence to ensure that ~~**operating**~~ **plant** personnel and contractors conducting	It is suggested to use word Plant Personnel instead of operating personnel, provide clarity for inclusion of maintenance	x			

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			safety related activities are capable of safely performing their duties. Certain operating positions at the nuclear power plant require formal authorization or a licence.	personnel, Health Physics, chemistry personnel as these also perform safety related activities at NPP.				
10 Pakistan	NUSSC	Requirement 3, Para 3.5	-	Requirement 3.5 states that "The refresher training shall also include retraining provisions for personnel who have had extended absences from their duties". Clarification regarding the term 'extended absence' may be added in the footnote.			x	Further guidance can be found in the SSG.
11 Pakistan	NUSSC	Requirement 9, Para 3.21	The operating organization shall not intentionally exceed the operational limits and conditions. Where circumstances necessitate plant operation outside the operational limits and conditions, clear formal instructions for such operations shall be developed, on the basis of a safety analysis. **The instructions shall be approved at least by the licensed duty Shift Supervisor and shall be reported to the regulatory authority within aappropriate timeframe.**	It is recommended that this requirement be reviewed in light of special emergency situations. Specifically, in the event of an emergency, the Main Control Room (MCR) Shift Supervisor may need to take immediate actions that deviate from the technical specifications (OLCs) in order to protect public health and safety without prior approval by operating	x			

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				organization. In such cases, it is proposed that, at a minimum, these actions be documented, approved in writing by the licensed Shift Supervisor on duty, and justified/reported to the regulatory authority within an appropriate timeframe.				
12 Pakistan	NUSSC	Requirement 3.27	The assessment and control of safety related activities shall take into account human performance ~~**standards**~~, the use of error reduction practices and other measures such as a strong safety culture.	Human performance standards is not a standard term and also not defined in IAEA glossary 2022 and may lead to confusion in understanding. The term human performance is quite understandable.	x			
13 Pakistan	NUSSC	Requirement 3,32	3.32. In the event that unexpected or uncertain occurrences are encountered that could impact safety at the nuclear power plant, a conservative decision making process **based on risk assessment** shall be undertaken. It shall be ensured that the final plant configuration meets the provisions of the safety analysis report and ensures that the plant remains in a safe state.	Conservative decision making itself is very broad term and can be further elaborated by adding risk assessment for better understanding.	x			

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14 Pakistan	NUSSC	Requirement 12, Para 3.42	-	Reference is made to Requirement 12, Section 3.42, which states that operating procedures shall be verified and validated. At the plant, various types of procedures are used under different operating conditions, including General Operating Procedures (GOPs), System Operating Procedures (SOPs), Abnormal Operating Procedures (AOPs), Emergency Operating Procedures (EOPs), Severe Emergency Operating Procedures (SEOPs), and Computer-Based Procedures (CBPs). Clarification is requested on whether all these categories of procedures are required to undergo verification and validation particularly in the context of new plant designs and First-Of-A-Kind (FOAK) systems.	x	Yes they all need to be verified and validated.		

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15 Pakistan	NUSSC	General	-.	Reference Para 1.7, scope of the document includes requirements for safe operation of multiple unit plants. Accordingly, Requirement 4 (Staffing), Requirement 8 (Training), Requirement 13 (Control Rooms), Requirement 16 (Fire Safety), Requirement 19 (Maintenance), Requirement 21 (Configuration Management), Requirement 32 (Accident Management) adequately covers related requirements considering multiunit aspect. However, following requirements lack explicit consideration for multi-unit plants or units with shared systems: a. Requirement 2 (Management System) b. Requirement 7 (Operating Experience)			x	For Requirement 10 paragraph 3.23 considers this. Requirement 12 this is covered in 3.42 as procedure shall be appropriate for the purpose of the procedure. Requirement 22 this is covered by 5.6

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				c. Requirement 10 (Safety-Related Activities) does not mention cross-unit risk assessments for maintenance on shared systems affecting multiple units. d. Requirement 12 (operating procedures) does not address establishing operating procedures while considering shared systems of multiunit NPPs. e. Requirement 22 (Modifications) does not require impact assessments for modifications on shared systems. The aspect of multiunit may also be incorporated to these requirements in order to meet the intent of the scope of document.				

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16 Pakistan	NUSSC	Requirement 3.53	Laboratory analysis and on-line monitoring equipment shall be used to provide accurate measuring and recording of chemistry and radiochemistry data and shall provide alarms for chemistry parameters **that are vital for ensuring plant safety**.	Alarms are not provided for all chemistry parameters and usually sampling is carried out for their monitoring. The requirement of alarms of chemistry parameters may be reduced to parameters that are vital for ensuring plant safety.	x			
16a	NUSSC	Requirement 17, Para 3.64	The effects of epidemics, **armed conflicts** and pandemics on the safe operation of a nuclear power plant shall be considered for their potential to impact the safe operation of the plant. As appropriate, the operating organization shall implement measures to protect site personnel and to ensure the necessary supplies for safe operation of the plant **during these situations**.	Consideration of regional security escalations leading to armed conflicts that could potentially impact safe operation of NPPs may also be considered.			x	Not appropriate to mention armed conflicts in this document.
17 Pakistan	NUSSC	Requirement 10, Para 3.34	-	Reference Requirement 10, Para 3.34, "The operating organization shall implement a structured, transparent and well communicated decision making approach to ensure that safety is an overriding priority in the			x	A decision making process which ensures safety is given the correct priority is appropriately position under Requirement 10 on the performance of safety related activities.

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				performance of safety related activities". This is holistic requirement and may be shifted to para 3.22.				
18 Pakistan	NUSSC	Requirement 31 Para 7.2	Emergency planning for the nuclear power plant shall also consider non-radiological events such as fire, explosions, and spills of chemicals, and events that could have an impact on the availability of plant personnel such as outbreaks**, armed conflicts** or pandemics (see para. 5.45).	There is need to also consider this aspect while making emergency preparedness and response arrangements for NPP.			x	Not appropriate for inclusion in this document.
19 Pakistan	NUSSC	Requirement 31 Para 7.3	Appropriate arrangements for emergency preparedness and response **and demonstration of emergency plans through exercises shall be ensured before the commencement of fuel loading.** ~~**shall be established from the time that nuclear fuel is first brought to the site, and the emergency plan and all emergency arrangements shall be in place before the commencement of fuel loading.**~~	The meaning of establishment of emergency arrangements before bringing fuel to site and keeping in place emergency plan and arrangements is same. The sentence is simplified for clear meaning.			x	Fuel can be brought onto site before fuel loading hence the reason for the distinction.
20 Japan (RASSC)	RASSC	1. Introduction 1.10 L3	Section 5 ~~7~~ establishes the requirements for engineering .		x			

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21 Japan (RASSC)	RASSC	3. Nuclear Power Plant Operations 3.59	In the arrangements for firefighting, special attention shall be paid to events for which there is a risk of release of radioactive material in a fire. Appropriate measures shall be established for the radiation protection of firefighting personnel based on relevant requirements for occupational exposure provided in GSR Part 3 and the management of radioactive releases to the environment.		x			
22 Japan (RASSC)	RASSC	6. Radiation Protection Programme at a Nuclear Power Plant 6.7	The radiation protection programme shall include controls over radiation dose rates in accessible areas of the nuclear power plant, including during activities such as inspection, maintenance and fuel handling. The radiation protection programme shall ensure that exposures due to radioactivity in the fuel coolant and associated fluids are as low as reasonably achievable. For activities involving high or potentially high dose rates, the radiation protection programme shall include special training and procedures for site personnel, including those employed by contractors~~, to ensure that protection and safety are optimized~~.				x	Optimisation of dose is commonly applied term.

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23 Canada	NUSSC	1.7, line 4	"…This includes multiple unit plants, evolutionary and innovative designs, and plants with alternative operating models (including autonomous systems and remote monitoring and intervention capabilities), transportable reactors, ~~and~~ microreactors and co-located facilities that may impact the operation of the nuclear power plant."	Consideration should be given to proponents looking to co-locate facilities that are part of, or rely on, the nuclear cycle in a way that impacts nuclear safety. In those cases, the facilities ought to be governed by the safety requirements as well.			x	Any potential impact of co-located facilities is covered in Requirement 28 Hazard Management and therefore does not need to be specifically mentioned here.
24 Canada	NUSSC	1.8, line 3	"The scope of this publication includes commissioning and operation up to the removal of nuclear fuel from the plant, including maintenance and modifications made throughout the lifetime of the plant and facilities that might be associated to the safe operation of the plant. It includes the preparation for …."	Consideration should be given co-located facilities that are part of, or rely on, the nuclear cycle in a way that impacts nuclear safety. In those cases, the facilities ought to be governed by the safety requirements as well.			x	Para 1.7 defines the scope of this Safety Standard as relevant for nuclear power plants. There are other standards which relate to other nuclear facilities.
25 Canada	NUSSC	2.3, line 4	"… The management system shall be used by all individuals, shall assist in achieving organizational goals and shall ensure that plant safety is given the highest priority, overriding the demands of production and project schedules, which supports the development of a strong safety culture."	Current wording "shall support the development of a strong safety culture." is nebulous in that a 'strong safety culture' is not easily defined or measured. Proposed wording aligns with item 2.17(a) and Requirement 5.			x	Safety culture is a defined term in IAEA and the IAEA offers a number of peer review services to assess the strength of safety culture within an organization.

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26 Canada	NUSSC	2.7, line 3	"The management system of the operating organization shall contain specific provisions for the procurement, supervision, use and maintenance of any commercial grade components, ~~and~~ any first of a kind components and services or systems/processes at co-located facilities that could affect the safety of the nuclear power plant."	Similar to comments (1) and (2). Expansion of this language lends itself well to 2.9(d).			x	Same reason as in line 24 above
27 Canada	NUSSC	2.8, line 10	"The operating organization shall provide the regulatory body with all necessary assistance to enable it to perform its duties, including the provision of unhindered access to the plant, personnel and documentation."	Recommend adding **"personnel"** to the list. This will ensure access to technical experts and licensee staff when required.	x			
28 Canada	NUSSC	2.15 (g)	"Transition ~~from~~ between commissioning to operations and operations to decommissioning."	If the document applies to both operations and decommissioning, then there will also be a transition in the early stages of the life of a facility that should probably be captured. If this document covers both commissioning and operations, there may be a separate commissioning organization set up (this exists for refurbishments as well	x			

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				as new builds) and there will be a turnover during this stage as well.				
29 Canada	NUSSC	2.21	"Distractions to control room operators shall be minimized. To avoid overburdening control room operators and to allow them to focus on their responsibilities for safety, work shall be scheduled to reduce simultaneous activities as far as possible."	This section is under the requirement for staffing of the operating organization. It doesn't seem like distractions to control room staff fit here. Recommend moving paragraph 2.21 to around/after paragraph 3.30.	x			
30 Canada	NUSSC	2.25, line 1	"The operating organization shall establish a safety policy that ensures safety is the highest priority, overriding the demands of production and project schedules, and promotes a strong safety culture, including a questioning attitude and a commitment to excellent performance in all activities important to safety…"	Similar to comment (3). A direct requirement of ensuring safety is the overriding priority as documented in the safety policy is suggested as 'strong safety culture' is nebulous.			x	See line 25
31 Canada	NUSSC	2.27, line 2	"The key aspects of the safety policy shall be communicated to external support organizations, including contractors and workers at co-located facilities that may impact nuclear safety, to ensure that the operating organization's requirements and expectations for the safety related	Non-nuclear facilities that are co-located yet may have an impact on the nuclear island should also be made aware of the nuclear island safety policy. For example: tritium removal facility,			x	See line 23

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			activities of these organizations are understood and met."	reprocessing facilities, water treatment plant, or other facilities that may rely/use on the nuclear facility or house systems important to safety.				
32 Canada	NUSSC	R-7	"The operating experience programme shall be used to identify good practices that can be adopted at the plant to improve safety. This information may come from benchmarking against similar plants and organizations. Consideration should also be given to good practices used within the operating organization that could have wider application. Operating experience gathered should also consider learnings from significant successes within the nuclear industry."	Recommend adding a paragraph under Requirement 7 between para 2.33 and 2.34 to cover good practices that can improve safety.			x	Covered in 2.28
33 Canada	NUSSC	2.34, line 3	"The operating organization shall use an analysis technique that considers the actual or potential significance of events. The analysis shall be performed by suitably qualified and trained personnel who are competent in the subject matter under review. Events with safety implications…"	The current wording allows for a generalist who is 'suitably qualified and trained' to perform an analysis, which may include persons who are trained in the OPEX or PI&R process(es) only and not on the content/subject matter that is material to safety. Administrative generalists may not fully understand the	x			

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				significance of an event.				
34 Canada	NUSSC	2.38, line 1	"The operating organization shall be responsible for ensuring that the expectation on staff is that all events are reported ~~instilling a culture among plant personnel that encourages the reporting of all events~~, including low level events and near misses, potential problems relating to equipment failures, shortcomings in human performance, procedural deficiencies or inconsistencies in documentation that are relevant to safety."	Current wording discusses 'instilling a culture' whereas the operating organization should document an expectation that all workers report all events no matter how inconsequential they may appear.			x	The wording instilling a culture better matches the importance of having a positive safety culture documenting an expectation doesn't mean it will happen.
35 Canada	NUSSC	R-8	"The operating organization shall establish a training program to ensure that all activities that might affect safety at the nuclear power plant are performed by suitably trained, qualified and competent persons."	Recommend clarification of Requirement 8 to better distinguish it from Requirement 4 and make it more specific to establishing the training program to develop and have competence staff	x			
36 Canada	NUSSC	3.1	"The operating organization shall clearly define the requirements for qualifications and competence to ensure that operating personnel and contractors conducting safety related activities are capable of safely performing their duties. Personnel who perform tasks while unqualified	It is not clear elsewhere in Requirement 3 what the requirements are for unqualified individuals that are in the process of becoming qualified	x	Personnel who perform tasks while unqualified but progressing through the training programme, shall be supervised and shall have all outputs reviewed and verified		

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			per the training program requirements (e.g., In the time period in which the trainee is actively attaining their qualification) shall be provided oversight of conduct and shall have all outputs reviewed and verified by a competent and trained individual prior to those outputs informing any safety action or decision. Certain operating positions at the nuclear power plant may require formal authorization or a licence."	(e.g., new graduates and new hires). It should be expected that, in cases, full qualification for a role may take a number of months or years and within that time, the person must be provided proper oversight and their outputs fully reviewed to ensure the safety of conclusions.		by a competent and trained individual prior to those outputs resulting in any safety action or decision.		
37 Canada	NUSSC	Section 3	*Recommend adding a footnote or additional text following 3.1 that points to SSG-75 Recruitment, Qualification and Training of Personnel for Nuclear Power Plants, for additional information/requirements.*	Multiple "training" terms were mentioned throughout the document. Section 3 of the document specifically discuss training under REQUIREMENT 8: QUALIFICATION AND TRAINING OF PERSONNEL. Subsection 3.6 and 3.7 mentions that the training programmes shall be based on systematic approach to training. However, the document does not refer to *SSG-75 Recruitment, Qualification and Training of Personnel for Nuclear Power Plants* at all.			x	We want to avoid having this as a signpost document which links all the associated SSGs.

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38 Canada	NUSSC	3.8	*Move paragraph 3.8 after paragraph 2.37*	This paragraph is related to OPEX and would be better suited after paragraph 2.37.			x	It could go in either location but would like to keep it in Training section as the responsibility for the incorporation of OE into training programmes lies with the Training department.
39 Canada	NUSSC	3.12, line 3	"…The plant shall be operated within the operational limits and conditions ~~to prevent situations arising that could lead to anticipated operational occurrences or accident conditions, and to mitigate the consequences of such events if they do occur~~…"	SOE limits and conditions are derived from the safety analysis, meaning they are based on the set of credible DBAs. Therefore, operation within the SOE does not "prevent" these events from happening, it only ensures that when/if they do happen, the safety case is maintained.	x	The plant shall be operated within the operational limits and conditions to so that if situations arise that could lead to anticipated operational occurrences or accident conditions, measures are taken to mitigate the consequences of such events if they do occur.		
40 Canada	NUSSC	3.12, line 5	"…The operational limits and conditions shall be developed for ensuring that the plant is being operated in accordance with the final safety analysis report, design basis ~~design assumptions and intent~~, as well as in accordance with its licensing conditions."	Adjusted text to state that OLCs should also be derived from the safety analysis, not just design basis and licensing conditions. Also, use of 'design basis' is clearer than	x			

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				'design assumptions and intent'				
41 Canada	NUSSC	3.13, line 4	"… All operational limits and conditions and the basis for their derivation shall be defined, documented through a controlled process, and made available for the reference of all users requiring an understanding of the basis for safe plant operation ~~substantiated by a written statement of the reason for their adoption and their relation to safety~~."	OLCs should be controlled through a process and additional requirement suggested that the OLCs are made available to all users that require an understanding of the basis for the safe plant operation.	x			
42 Canada	NUSSC	3.14, line 1	"The operational limits and conditions shall be subject to processes that keep it up to date with respect to changes in plant design, operating procedures and experience, safety analysis, developments in technology and approaches to safety, and licence requirements. Similarly, change management processes shall include references to the operational limits and conditions to ensure that this information is taken into consideration when making changes. Revisions to operational limits and conditions shall be submitted to the regulatory body for assessment and approval prior to implementation. The submission should include the basis for the revision and qualitative as well as quantitative impact on plant safety and overall plant operation. ~~reviewed and revised as necessary in consideration of operating experience, developments in~~	Recommended change to expands the requirement that this should be a through a change management process.	x	3.14. The operational limits and conditions shall be reviewed and revised as necessary following a robust management of change process that keeps the operational limits and conditions up to date with respect to changes in plant design, operating experience, safety analysis, developments in technology and approaches to safety, and licence requirements.		

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			~~technology and approaches to safety, and changes in the plant~~."					
43 Canada	NUSSC	3.16, line 1	"The operational limits and conditions shall be defined for a set of plant operating states based on the approved design of the plant ~~include requirements for normal operation, including shutdown and outage stages~~, and shall cover actions to be taken and limitations to be observed by the operating personnel."	Rather than specifying the plant states, recommend changing the wording to apply to any applicable plant states.	x	3.16. The operational limits and conditions shall be defined for a set of plant operating states based on the approved design of the plant including requirements for normal operation, shutdown and outage stages, and shall cover actions to be taken and limitations to be observed by the operating personnel.		
44 Canada	NUSSC	3.17 (e)	"Action statements and timelines to correct ~~for~~ deviations from normal operation. Timeliness shall be commensurate with the safety significance of the deviation"	Timely action is required for safety significant deviations.	x			
45 Canada	NUSSC	3.18	"Operating personnel who are directly responsible for the conduct of operations shall be trained ~~in~~ on and ~~shall be thoroughly familiar~~ knowledgeable of ~~with~~ the operational limits and conditions in order to comply with the provisions contained therein."	Suggest a link is made to the training program as the current wording of 'thoroughly familiar' is nebulous.	x			
46 Canada	NUSSC	3.19 and 4.3	"The operating organization shall establish surveillance programmes for ensuring compliance with established	There is considerable overlap between sections 4.3 and 3.19.	x			

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			operational limits and conditions and for detecting and correcting any abnormal condition before it can give rise to significant consequences for safety. The operating organization shall ensure that ~~an appropriate surveillance programme is established and implemented to ensure compliance with the operational limits and conditions, and that it's~~ the results of the surveillance programme are evaluated, recorded and retained."	Suggest combining them and keeping under 3.19 as suggested.				
47 Canada	NUSSC	3.21, line 4	"…These instructions shall include steps and timelines for returning the plant to normal operation within the operational limits and conditions…."	Timelines are also required so that sustained operation outside of OLCs does not present an undue risk.	x			
48 Canada	NUSSC	3.22, line 7	"… there are no negative effects on the safety of the workforce, the public or the environment. Graded approaches shall be documented and approved by component personnel. "	Suggest that a strict requirement to document any graded approach be applied to ensure that whatever approach is used, is traceable and approved by qualified persons/oversight.	x			
49 Canada	NUSSC	3.23	"The assessment and control of safety related activities shall take into account potential risks associated with interactions between multiple units, shared systems and other plant systems or other facilities that may impact nuclear safety."	Extend the requirement of 3.23 to potential co-located facilities that may have an operational impact on nuclear safety.			x	See previous comments

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		3.28	"In the performance of safety related activities, written communication shall be preferred~~, and spoken communication shall be minimized~~. If spoken communication is used, attention shall be given to ensuring that spoken instructions are clearly understood and error reduction practices shall be used."	Recommend adjusting wording around spoken communication. In some instances, spoken communication can be effective and safe (e.g., limiting number of people in performing work in higher radiation zones by providing instructions through headsets). Also, harden the requirement to use error reduction techniques (e.g. 3-way communication or phonetic alphabet) in spoken instruction.	x			
50 Canada	NUSSC	3.29, line 3	"The operating organization shall ensure that the competence requirements for staff and contractors who perform safety related activities are identified, documented and communicated and taken into account in training programmes. Personnel who perform tasks while unqualified per the training program requirements (e.g., In the time period in which the trainee is actively attaining their qualification) shall be provided oversight of conduct and shall have all outputs reviewed and verified by a competent individual prior to those outputs informing any safety related activity or decision."	It is not clear elsewhere in Requirement 3 what the requirements are for unqualified individuals that are in the process of becoming qualified (eg. New graduates and new hires). It should be expected that, in cases, full qualification for a role may take a number of months or years and within that time, the person must be			x	Already included in 3.1, not necessary to repeat here.

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				provided proper oversight and their outputs fully reviewed to ensure the safety of conclusions.				
51 Canada	NUSSC	3.32, line 3	"In the event that unexpected or uncertain occurrences are encountered that could impact safety at the nuclear power plant, a conservative decision-making process shall be undertaken. This process shall be documented and reviewed to ensure ~~It shall be ensured~~ that the final plant configuration meets the provisions of the safety analysis report, operational limits and conditions and ensures that the plant remains in a safe state."	Suggest adding the requirement that a decision-making process be documented for traceability and that this process ensures that a safe state is assured.	x			
52 Canada	NUSSC	3.34, line 1	"The operating organization shall implement a documented, structured, transparent and well communicated decision making approach…"	Suggest adding the requirement that a decision-making process be documented for traceability and that this process ensures that a safe state is assured.			x	Will not include as a separate Requirement statement as this stage of the document. Would rather wait to see what comments we get back from Member States.

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53 Canada	NUSSC	3.37, line 1	"Monitoring of safety performance shall include but not be limited to the monitoring of…"	Allow to operator to expand monitoring beyond the criteria prescribed.	x			
54 Canada	NUSSC	3.38	"The persons and organizations performing assessments, reviews and oversight functions shall have ~~sufficient authority and~~ organizational independence to identify weaknesses, strengths, risks and improvement opportunities, and to recommend and verify the implementation of solutions for the enhancement of safety performance. These persons and organizations shall report to a level of management that has ~~can provide~~ the necessary authority and organizational independence to ensure that findings from the assessments are reviewed and implemented to ensure that plant safety matters are given the highest priority, overriding the demands of production and project schedules."	Removed wording stating that assessors need sufficient authority to perform the assessments. Assessors do not require authority defined here to perform their roles as this should be defined by the roles and responsibilities of the management system. Independence is all that is needed to perform formal audits. Language was added to ensure that the findings are presented to an appropriate level to ensure that findings are appropriately dispositioned and corrected.	x	Retained the word authority so that parts of the organization such as independence oversight have the authority to raise matters directly with senior leadership team. Other wording accepted.		

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55 Canada	NUSSC	3.39, line 2	"The independent oversight functions shall ensure that issues that are not addressed within the specified time frames are escalated to the senior managers in the organization for resolution. Senior managers shall take action to ensure that issues are addressed, and that appropriate oversight is provided."	Add a requirement to ensure that senior leaders take action when told of issues not being addressed in a timely manner.	x			
56 Canada	NUSSC	3.42, line 1	"~~The level of detail for a particular operating procedure shall be appropriate for the purpose of that procedure.~~ The guidance provided in the procedures shall…"	Suggest removal of the current first sentence as it is subjective as to what an appropriate level of detail means. The proposed language addresses the requirement for documented procedures without subjectivity.			x	The level of detail n the procedure is important, too little and mistakes can be made and likewise if too much detail is included the same can happen.
57 Canada	NUSSC	3.42, line 5	"…The procedures and associated reference material shall be clearly labelled and shall be readily accessible in the control room and in other operating locations as necessary. ~~The procedures shall be made available to the regulatory body, as required.~~ Strict adherence to written operating procedures shall be an essential element of safety policy at the plant."	Recommend removing the sentence as it is already captured in paragraph 2.8.	x			

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58 Canada	NUSSC	3.49, line 7	"The alarms in the main control room shall be managed as an important feature for the safe operation of the plant. The plant information system shall be such that abnormal conditions are easily recognizable by the operating personnel. Control room alarms shall be clearly prioritized. The number of alarms, including alarm messages from process computers, shall be minimized for any analysed operational state, outage or accident condition of the plant. The operating organization shall establish procedures for operating personnel to manage the response to alarms. Appropriate operator action shall be completed to address the cause of any alarm."	Suggest the hardening of the requirement to take action on the cause of the alarm rather than the need to simply reduce the number of alarms. Simply silencing or clearing the alarm annunciation is not the expectation, rather, the Operator needs to reduce the number of alarms by taking appropriate action to address the cause of them.	x			
59 Canada	NUSSC	3.55	*Move to new paragraph:* "Equipment that is degraded (e.g. owing to leaks, corrosion spots, loose parts or damaged thermal insulation) shall be identified and reported and deficiencies shall be assessed and corrected in a timely manner using a documented risk-based approach that prioritizes plant safety."	Recommend splitting 3.55 into two requirements. Suggest the statement shown be removed from the current clause and added as a standalone paragraph separate from the existing 3.55 language. The recognition and resolution of equipment degradation is not and ought not to be tied to housekeeping and the requirement for well-lit areas and approved temporary storage.	x			

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				Relating to the suggested statement, timely manner should be replaced with a provision to assess and correct deficiencies based on a document approach with is risk based according to safety.				
60 Canada	NUSSC	3.57 (g)	"Assessment of required actions to be taken on the fire safety measures as a result of any plant modification (permanent or temporary) to any plant system, including the fire safety systems themselves. ~~the impacts of plant modifications on fire safety measures~~."	It should be stipulated that the fire safety program need not only assess impacts to the fire safety system by plant modification (as is in the current language) but also have documented actions to be taken when those modifications (temporary or permanent) are proposed if they impact the fire safety system	x			
61 Canada	NUSSC	3.64, line 1	"The continuity of operations shall consider the effects of epidemics, pandemics, natural disasters, labour disruptions, etc., ~~The effects of epidemics and pandemics~~ on the safe operation of a nuclear power plant ~~shall be considered for their potential to impact the safe operation of the plant~~. As appropriate, the operating organization shall implement measures to protect site personnel and	It might be better to consider the wider application of any potential issues and put it under the heading of "continuity of operations", which could arise from items such as a pandemic, but also things like natural disasters,	x	The continued safe operation of the nuclear power plant shall consider the effects of unexpected events such as epidemics, pandemics and natural disasters and their potential to impact safety		

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			to ensure the necessary supplies for safe operation of the plant."	labour disruptions, among others.				
62 Canada	NUSSC	4.1, line 2	"The maintenance, testing, surveillance and inspection programmes shall include ~~predictive,~~ preventive (including predictive) and corrective maintenance activities, which shall be undertaken…"	According to IAEA glossary, predictive maintenance is part of preventive maintenance. The current wording gives the impression that predictive maintenance is not part of preventive maintenance.	x			
63 Canada	NUSSC	4.1, line 6	"…In the event that failures do occur, corrective maintenance activities shall be conducted to restore the capability of failed structures, systems and components to function ~~within acceptance criteria~~ such that the plant is maintained within the safe operating envelope as prescribed by the safety analysis."	Current language of 'acceptable criteria' is subjective. The goal for corrective maintenance is to restore the plant to the requirements of the safety analysis be it to restore full redundancy or return system to the minimum required operability.	x			

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64 Canada	NUSSC	4.3, line 3	"The operating organization shall establish surveillance programmes for ensuring compliance with established operational limits and conditions and for detecting and correcting any abnormal condition ~~before it can give rise to significant consequences for safety~~."	The removal of the final statement of the existing clause is suggested. A qualifier of 'before it can give rise to significant consequences for safety' is not required.	x	Moved to 3.19		
65 Canada	NUSSC	4.6	*Add after item (e):* "Changes to the frequency of maintenance, testing, surveillance and inspection initially defined and approved shall be controlled, reviewed and dispositioned by competent technical personnel and founded on an appropriate technical basis whose conclusions shall not be overridden on the basis of commercial pressures."	It is recommended to add a provision to this item to allow for the inevitable revision of testing, preventative maintenance etc. frequencies but to ground those revision requests on a technical basis and not on commercial priorities.	x			
66 Canada	NUSSC	4.6	*Add items:* (f) Design requirements and operating conditions (g) Ageing management requirements (h) The requirements of applicable industry codes and standards	These items are also required based on Canadian REGDOC-2.6.2 and early IAEA guidance.	x			
67 Canada	NUSSC	4.8, line 2	"New approaches that could result in significant changes to current strategies for maintenance, testing, surveillance and inspection shall be taken only after review and assessment by competent technical personnel ~~careful consideration~~ of the implications for safety and, where required, after appropriate authorization by the regulatory body."	Harden the requirement of what the operating organization shall do and who shall do it in considering any changes as 'careful consideration' is subjective. Novel approaches are fine	x			

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				only if the approach has been assessed by a competent individual.				
68 Canada	NUSSC	4.9, line 5	"…The operating organization shall establish procedures to ensure that relevant information is transferred at shift turnovers and at pre-job and post-job briefings on maintenance, testing, surveillance and inspection activities."	This sentence should be removed from paragraph 4.9 to a new, standalone paragraph as the expectations of shift turnover should be separate to work planning and control processes.			x	This sentence is specifically for maintenance personnel where the status of work package is a key component for their handover.
69 Canada	NUSSC	4.9, line 1	"A comprehensive work planning and control ~~system~~ process shall be implemented by the operating organization to ensure that maintenance, testing, surveillance and inspection activities are properly authorized, planned and performed safely and that safety functions are maintained, and structures, systems, and components are protected. …"	Suggest changing "work planning and control system" to "work planning and control process". Industry typically does not call work planning and control as a "system", it is a managed process. System can also be mixed with physical system which leads to confusion. In addition, suggest adding "planned" for completeness.	x			

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70 Canada	NUSSC	4.10, line 1	"The work planning and control ~~system~~ process shall ensure that plant equipment is released from service for maintenance, testing, surveillance or inspection only with the approval of designated operating personnel and in compliance with the operational limits and conditions. The work planning and control ~~system~~ process shall also be designed to ensure that permission to return equipment to service following maintenance, testing, surveillance or inspection is given by designated operating personnel. S"	Industry typically does not call work planning and control as a "system", it is a managed process. System can also be mixed with physical system which leads to confusion.	x			
71 Canada	NUSSC	New para under R-20	*Add new paragraph after 4.19:* "During the performance of outage activities, at no time shall commercial and/or outage schedule time pressures be prioritized over plant safety."	Recommend adding the proposed as a separate paragraph to highlight the importance of plant safety as a priority over the inevitable outage critical path/commercial pressures.			x	Already covered in 4.18
72 Canada	NUSSC	4.20, line 2	"The tasks, authority and responsibilities of the groups and persons involved in preparing, ~~conducting or~~ assessing or executing outage schedules and activities shall be formally assigned and shall be followed by all operating personnel and contractors who are involved."	Suggest replacing "conducting or assessing" by "assessing and executing" for more logic sequence and better clarity.	x			
73 Canada	NUSSC	R-21	"The operating organization of the nuclear power plant shall establish and implement a system for plant configuration management to ensure consistency between design requirements, physical configuration,	Update Requirement 21 to capture 'operational configuration' which is different from physical	x			

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			operational configuration and plant documentation."	configuration. Requirement 21 focuses on changes to plant configuration with no mention of operational configuration.				
74 Canada	NUSSC	5.5, line 5	"…The modification programme shall cover: structures, systems and components; operational limits and conditions; procedures; documents; and the structure of the operating organization. The modification program shall include the requirements of the plant configuration management system to ensure modifications to plant configuration are appropriately tracked, managed and documented."	Suggest hardening the link between the modification and configuration management programs. Item 5.13 may be an appropriate place for this as well, or possibly as a new paragraph after 5.5.	x			
75 Canada	NUSSC	5.11, line 2	"When a temporary modification needs to be implemented immediately in the interest of safety, it shall be independently reviewed by the operating and design authorities prior to implementation and subsequently reviewed in accordance with the normal process for temporary modifications at the earliest opportunity."	Suggest the addition of a stipulation on who must review temporary modifications applied immediately in the interest of safety. Both the Operating and Engineering organizations ought review.	x			
76 Canada	NUSSC	5.20, line 1	"Events ~~with low probability but high consequences~~ that could cause core damage or spent fuel accidents shall be analysed. …"	Removed qualifier that events of low probability yet high consequence be analysed. All events ought be analysed and			x	Would like to mention it specifically as events with low probability do not always get sufficient

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				be subjected to the shown requirements.				analysis. Will see what Member States say.
77 Canada	NUSSC	5.22, line 5	"…A means of monitoring the status of core cooling and that of spent fuel cooling pools in all operational states shall be provided."	Given the paragraph includes both in core and spent fuel (in spent fuel pools) it is recommended to add language, as proposed, to capture the monitoring of spent fuel cooling parameters.	x			
78 Canada	NUSSC	5.34 to 5.40	*Remove paragraphs and refer to SSG-25*	Much of this section seems to be taken from SSG-25, Periodic Safety Reviews. It's currently undergoing review and has some potentially substantial changes – it would be best to shorten this section and simply point to that standard.			x	I am in contact with the TO for the revision of SSG-25 and we both agree to keep this section as it is.
79 Canada	NUSSC	5.38 and 5.40	*Define 'reasonably practicable'*	It is recommended to define what is meant by 'reasonably practicable' in paragraphs 5.38 and 5.40 (or point to where it is defined in SSG-25). It is also suggested that the operating organization be required to prove that any highly material changes to safety standards that			x	The definition can be found in SSG-25 so not necessary to repeat it here.

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				are deemed NOT reasonably practicable to implement to not ultimately result in any regulatory or standards violations that may lead to an unsafe event prior to plant end of life.				
80 Canada	NUSSC	5.45, line 12	"… The ageing management programme shall be coordinated with, and consistent with, other relevant programmes, including the programme for periodic safety review. *If, in the absence of maintenance results, the ageing management programme uses operational surveillance testing data as a basis for condition assessment, the operating organization shall highlight how the degradation is being assessed by the results via the testing.* "	Suggested addition to ensure that operating organizations be required to not simply assess operability of a component and use that as confirmation of a lack of degradation. Some operational testing is binary in that components will operate as intended or not and the availability/system test will pass or fail on that basis, however the test does NOT assess a degradation of that binary outcome and a degradation (or failure) of that component is not tracked via that functional testing.			x	This level of detail is better included in the SSG-48

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81 Canada	NUSSC	6.3, line 2	"The operating organization shall ensure that the radiation protection programme has ~~sufficient~~ independence and resources to be able to enforce and to advise on radiation protection regulations, standards and procedures, and on safe working practices."	Suggest removal of the qualifier of 'sufficient' from the current language. The RP program ought have autonomy defined in the management system to perform its duty as it relates to safety.	x			
82 Canada	NUSSC	8.9, line 3	"During commissioning, the operating, maintenance and testing procedures shall be verified to ensure their technical accuracy and shall be validated to ensure their usability with the installed equipment and control systems. The commissioning and testing procedures shall document the regulatory or international standards that are applicable and the pass/fail criteria applicable to the testing. This verification and validation of procedures shall be performed with the participation of future operating personnel and, to the extent possible, before fuel handling operations commence on the site. …"	It is suggested that the operating organization explicitly document in their commissioning documents, what standards to the structure/system/component are applicable as part of the test and explicitly state what criteria from those standards are being used as pass/fail criteria for the testing.			x	This level of detail better included in SSG-28
83 Canada	NUSSC	8.11, line 4	"The operating organization shall ensure that appropriate procedures are developed for the handover of the plant at the end of commissioning. This shall include the transfer of responsibilities for structures, systems and components, items of equipment and documentation, and it may include the transfer of personnel. The operating organization shall ensure that plant configuration at handover is	In order to ensure that plant status is maintained as per the design requirements of the safety analysis, the operator ought to be required to validate that the configuration of the plant is in accordance with the	x			

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			prescribed for the required operating state at that time and is verified and maintained in accordance with the safety analysis prior to final acceptance.”	expectations set out by the design authority.				
84 Canada	NUSSC	8.15, line 2	“During construction and commissioning, a comparison shall be performed between the as built plant, system configuration and its design parameters. A comprehensive process shall be established to address non-conformances in design, manufacture, construction and operation. Resolutions to correct differences from the initial design and non-conformances shall be documented.”	Paragraph 8.15 states “During construction and commissioning, a comparison shall be performed between the as built plant and its design parameters”, which is not quite the same as establishing the initial as-built configuration.			x	Comparison between as built and design is required to identify any non-conformances.
85 Canada	NUSSC	Section 9	*Add after paragraph 9.7:* “All safety related activities conducted in support of future decommissioning shall be performed in accordance with written procedures to ensure that the plant is operated within the established operational limits and conditions.”	Paragraph 3.25 states “All safety related activities shall be performed in accordance with written procedures to ensure that the plant is operated within the established operational limits and conditions”. However, since paragraph 1.8. states that the scope “includes the preparation for decommissioning but not the decommissioning stage itself”, Sec. 9 makes no reference to	x			

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				the use of written procedures, work plans or work control documents to control the activities during the preparation for decommissioning. The preparation for decommissioning stage may not be considered operations, so the requirement of paragraph 3.25 may not apply.				
86 Finland	NUSSC	General comment related to requirements 8, 9, 12, 24, 27, 33 and 34	Comment: The role of PSA should be stronger in the SSR 2/2 (R2).	The use of PSA and its applications has steadily increased in risk informed decision making and NPP safety management worldwide. This should be adequately addressed also in the SSR 2/2 (R2). In this respect, the changes in the current version are minimal compared with the SSR 2/2 (R1, 2016). More information on the use of PSA can be found e.g. in IAEA SSG-3 (R1, 2024).			x	No wording suggested to modify the text.

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87 Finland	NUSSC	Para 2.2.	Add: This includes the provision of any necessary resources**, information** and support from the operating organization.	It is important that the management has enough information to make decisions.	x			
88 Finland	NUSSC	Para 2.3	Add: The language of the management system must be understandable to everyone.	It is important that everyone understands what is written in the management system.			x	This is implied
89 Finland	NUSSC	Para 2.4.	Add: **The management system must be based on a standardized management system framework.**	Standardized e.g. the ISO family of standards creates the best conditions for combining different management systems.			x	Agency does not specify how this can be achieved but what needs to be done
90 Finland	NUSSC	Para 2.9. (b)	Add: (vii) Establishing a programme for making changes to the management system, **including changes in operations and organization. The risks of changes must be assessed before the changes.**	Changes here must be understood broadly, not only as textual changes, but also as changes related to operations and organization. Changes always involve risks that must be considered in advance.	x			
91 Finland	NUSSC	Para 2.9. (e)	Add: **The output of the review process must be continuous improvement of operations.**	The review processes are not carried out solely for their own sake, but it is important that they produce effective results for the development of			x	You can review to see where you are without wanting to

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				operations. This does not always happen.				change anything
92 Finland	NUSSC	para 2.9.(b) (v)	Add: **Define a standard structure for the instructions and a manual-specific instruction hierarchy**	Different instructional structures may challenge the ability and ability to follow instructions. It would be recommended to define a standard structure for the guidelines and a manual-specific hierarchy of instructions, to get rid of the problem.			x	More appropriate in an SSG
93 Finland	NUSSC	para 2.14	Add: **The risks of organizational changes must be assessed in advance.**	It is important to understand that all changes can also involve risks, such as important tasks not being taken care of or cooperation becoming more difficult due to organizational interfaces. These can be of great importance to safety.			x	Already included in 2.14

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94 Finland	NUSSC	para 2.16. (b)	Add: Activities for the monitoring, evaluation, **auditing,** verification and reporting of suppliers' performance.	The audit procedure is a normal way of assessing the capabilities of a supplier's organization.	x			
95 Finland	NUSSC	para 2.16 (a)	Add: **The assessment procedures must be more comprehensive and stricter the greater the safety significance of components and services.**	According to the Graded Approach principle, the safety significance must always be considered and the activities must be proportionate to it.			x	I believe that this is implied but if not clear then it is more appropriate in SSG
96 Finland	NUSSC	para 2.17 (b)	Add: **Standardized project procedures shall be created to manage projects**	To carry out large and complex projects, there must be systematic procedures for managing them. There are many project templates that can be applied. This ensures the success of projects and modifications.			x	More appropriate in SSG
97 Finland	NUSSC	para 2.17. (d)	Add: **The resources needed for the project must be adapted with the needs of the line organization.**	It must always be considered that the work is done at the same time and with the same human resources in the organization. Procedures must be created to ensure that there are sufficient resources for both.			x	The phrase 'long term human resource requirements' already covers this.

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98 Finland	NUSSC	Para 2.18	The operating organization shall be responsible for ensuring that the necessary knowledge, skills, attitudes and safety expertise **exist and** are sustained at the plant, and that there are adequate provisions for ensuring long term human resources.	A sufficient baseline must exist before it can be sustained.	x			
99 Finland	NUSSC	Para 2.20	Shift teams shall be staffed to ensure that sufficient authorized operating personnel are present to operate the plant in accordance with the operational limits and conditions (see Requirement **9**) **and to ensure the safety of the plant in anticipated operational occurrences and accident conditions.**	Shift team staffing should, in addition to the operation in accordance with the OLCs, consider plant operation under AOOs and accident conditions (e.g. the OLCs do not cover the operation under accident conditions – instead it is required to ensure the safety of the plant in accident conditions by e.g. ensuring the correct functioning of the safety functions which is achieved e.g. by operating the plant in accordance with the operating procedures such as EOPs). In the proposal ”to ensure safety of the plant” includes the monitoring of the plant (e.g. to ensure that the passive and/or automated safety	x			

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				functions have been actuated and are functioning as required and to have a good situational awareness of the plant's status) and the necessary operator controls that are needed by the shift team (also possible necessary remedial actions in case of e.g. automation failures). Shift team composition should consider all operational states and accident conditions.				
100 Finland	NUSSC	Para 2.22	A staff health policy shall be developed, established, monitored and regularly updated by the operating organization to ensure the medical and psychological fitness for duty of personnel. Attention shall be paid to minimizing conditions causing **harmful** stress, to setting restrictions on overtime, and to ensuring adequate rest breaks. The health policy shall cover the prohibition of alcohol consumption and drug abuse.	Not all stress is harmful. The key is whether the stress is temporary or ongoing. People can tolerate short-term stress much better and it usually doesn't cause problems.	x			

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101 Finland	NUSSC	Para 2.23	A knowledge management process shall be established to identify, **acquire**, maintain and share knowledge, skills and information as a fundamental means of achieving the objectives and goals of the operating organization and organizational and individual competences.	After identification, the next step in the process is to acquire, for example, the skill in question and then maintain it.	x			
102 Finland	NUSSC	para 2.26.	Add: The safety performance standards and the expectations of managers with regard to safety performance shall be clearly communicated **and made concrete** to all personnel, and it shall be ensured that they are understood by all those involved in their implementation.	Often, safety policies remain at such a general level that it is difficult for personnel to understand them. Nor can they be taken into account in practical work.			x	Covered in 2.24
103 Finland	NUSSC	Para 2.31.	Delete: The safety policy shall include a commitment to adopt a systemic approach (i.e. an approach relating to the system as a whole in which the interactions between technological, human and organizational factors are duly considered) to optimize organizational strategies, utilization of resources and performance of safety related activities ~~as far as applicable.~~	This final part can destroy the meaning of the whole sentence.	x			
104 Finland	NUSSC	Ch. 3, Req. 8: Qualification and training of personnel	PSA should (shall) be used to develop and improve training programme for operating and maintenance personnel.	PSA identifies dominant accident sequences in which human failure events play a significant role, risk importance measures of human failure events and associated SSCs,	x			

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				recovery actions and accident management actions with high risk importance which can be used to enhance the training programme for operating personnel. Insights and results from PSA can be used in focusing on potential risk significant impacts of maintenance activities such as common cause failure and maintenance induced failure of multiple system trains.				
105 Finland	NUSSC	Para 3.9	Qualification requirements for training instructors shall be established. All training instructor positions shall be held by adequately qualified and experienced persons, who have the requisite technical knowledge and skills and have credibility with the trainees. Training instructors shall have the necessary instructional skills and shall also be familiar with the current routines and work practices through regular visits to the workplace. **Trainers must have sufficient pedagogical knowledge and the ability to adapt training methods and tools as needed.**	To ensure the required training outcomes, it is useful to consider the needs of the target group and the specific characteristics of the topic being trained.	x		x	Very difficult to measure.

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106 Finland	NUSSC	Ch. 3, Req. 9: Operational limits and conditions	PSA should (shall) be used to develop risk informed limits and conditions (incl. AOTs) for plant operation and maintenance related to the risk importance of the affected plant features. PSA can also be used to check the coverage and adequacy of existing OLC requirements.	Risk importances (from PSA) should be reflected in the LCOs. For example the risks for continued operation during the allowed time and the risks after the measure has been implemented should both be taken into account.			x	Part is covered by 3.15 and the link between PSA and OLCs is better described in SSG
107 Finland	NUSSC	Ch. 3, Req. 12: Operating procedures	PSA should (shall) be used to support the development of emergency operating procedures.	PSA can be used to identify risk significant operator actions to support the development and enhancement of emergency operating procedures.			x	Better described in SSG
108 Finland	NUSSC	Requirement 12	Operating procedures for the nuclear power plant shall be developed **that apply comprehensively** for normal operation, anticipated operational occurrences and accident conditions.	The added "comprehensive" refers here to the aspect that the operating procedures shall be developed in such a way that they take into account comprehensively different AOOs and accident conditions and transfers between these conditions and reliably support the control room operators under all conditions. This requires that the operating procedures' design process considers this and that			x	Covered in 3.43

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				the procedures are designed and developed as a whole with the support of, for example, an operating procedures' concept. Using comprehensive approach in the design of the procedures enables taking human factors into account in the design appropriately. This improves human reliability as procedures provide better support for operators for example in choosing correct procedure and in transitions between procedures.				
109 Finland	NUSSC	Para 3.43	3.43. Guidelines shall be developed for the management of severe accidents. **3.44. For operating procedures for anticipated operational occurrences and accident conditions, both event-based approaches and symptom-based approaches shall be use, as appropriate. In addition, for these procedures the related analysis and justifications shall be documented.**	It is not appropriate that this item/para is only for guidelines for the management of severe accidents. Instead it should comprehensively consider procedures for AOOs and accident conditions. In addition, the event and symptom-based approaches are especially related to the operating	x			

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				procedures for AOOs and all accidents (e.g. design bases accidents / Emergency Operating Procedures). Also, the documentation of the analyses and justifications (see e.g. WENRA SRL LM2.4 and LM3.1) is related to the operating procedures for AOOs and all accidents. Suggestion is to split the item 3.43 and to add a new item 3.44 as proposed.				
110 Finland	NUSSC	Para 3.65	Add: Records of site evaluation, design, commissioning and operation, including maintenance and surveillance activities, shall be kept available for each plant system important to safety, including relevant off-site tests. **Configuration management procedures must be established.** The records of permanent and temporary modifications shall be retained, including basic and detailed design documentation and records of design verification, installation and testing.	It is important to establish procedures that can reliably track changes and up-to-date information.			x	This is captured within the management system Req 2 2.9 b(v)

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111 Finland	NUSSC	Para 5.1	Proper controls shall be implemented to address changes in plant configuration **items** that result from, for example:	Reference to relevant CM terminology in CM standards as ISO 10007, please also see sentence above	x			
112 Finland	NUSSC	Chapter 5	**The operating organization of the nuclear power plant shall establish and implement a comprehensive configuration status accounting handover from the engineering organisation to operating organisation to ensure the relevant basis(baseline) for the plant operational configuration management.**	Without rigid handover of plant, systems and component CM data the system for plant configuration management would be vulnerable for errors and misinterpretations ref 2.6, 2.9 (f)			x	Already captured in the existing wording.
113 Finland	NUSSC	Para 5.1 (a)	Changes to **design basis, design** requirements, margins and operational limits and conditions;	Design basis values could be a part of configuration item. Not only requirements.	x			
114 Finland	NUSSC	Ch. 5, Req. 27: Programme for long term operation	PSA should (shall) be used as one of the inputs for resolving issues relating to operations, periodic safety reviews and <u>long term operation</u>, as well as providing insights into whether proposed design modifications and operating changes are adequate.	PSA identifies risk significant SSCs.			x	Covered in 5.37 and 5.51 (a)
115 Finland	NUSSC	Para 5.17	In addition, the fuel design ~~criteria and fuel enrichment~~ shall be in accordance with design specifications and shall be subject to approval by the regulatory body as required.	Why only design criteria and enrichment? Propose to make it broader so that the fuel as a whole is in accordance to specifications and approvals.	x	. In addition, the fuel design criteria including fuel enrichment shall be in accordance with design specifications and shall be subject to approval		

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						by the regulatory body as required.		
116 Finland	NUSSC	Para 5.27	The operating procedures for reactor startup, power operation, shutdown and refuelling shall include the precautions and limitations necessary to maintain fuel integrity and to comply with the operational limits and conditions throughout the lifetime of the fuel.	Move the text about emergency operating procedures under requirement 12 (Operating Procedures).			x	Prefer to leave it where it is as it specifically related to the core.
117 Finland	NUSSC	Ch. 8, Req. 33: Commissioning programme	PSA should (shall) be used in the assessment of the coverage and balance of the commissioning test programmes, and reduction of the nuclear commissioning risks (after fuel loading).	PSA is a useful tool to assess potential risks related to e.g. plant level commissioning tests (LOOP etc.) and in the preparation for potential problems during the tests. (identification of risk significant operator actions and SSCs needed)			x	I believe that the use of PSA is already covered and for this specific application this level of detail is more appropriate in a SSG

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118 Finland	NUSSC	Ch. 9, Req. 34: Preparation for decommissioning	The PSA should (shall) be used in the decommissioning stage of the plant to ensure that risks associated with the decommissioning process and remaining radioactive materials stored at the site are negligible.				x	Covered in 9.7 and scope of this Safety Standard is only for the transition phase. Use of PSA for decommissioning is best described in other Safety Standards.
119 Japan	NUSSC	general	Para 1.7 states that "This publication establishes requirements on the safe commissioning and operation of nuclear power plants. This includes multiple unit plants, evolutionary and innovative designs, and plants with alternative operating models (including autonomous systems and remote monitoring and intervention capabilities), transportable reactors and microreactors." While it would be acceptable to expand the scope of this publication, some of the proposed paragraphs include novel concepts that are not permitted or discussed in the current SSR-2/1 (Rev. 1), such as the sharing of safety systems and remote control. For this reason, these issues should be considered when		x			It was agreed in DPP that these factors would be a part of this revision and would also be included in SSR-2/1 when that standard was next reviewed.

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			developing and revising SSR-2/1 (Rev. 1), independently, without prejudice or restrictions. Therefore, these paragraphs should be deleted at this moment. Otherwise, to make it clear that these do not relax standards for existing reactors, it should be specified that it only applies to innovative reactors such as SMRs. Relevant comments are #11, 26, 27, 28, 33, 39 and 48.					
120 Japan	NUSSC	2.1.	The prime responsibility for safety shall cover all the activities relating to the operation, both directly and indirectly. It shall include the responsibility for supervising the activities of all other related groups (i.e., external support organizations, ~~such as~~ designers, suppliers, manufacturers and constructors, employers and contractors, as well as the responsibility for operation of the nuclear power plant by the operating organization itself). …….	"External support organization" are used in later paragraphs without any explanations. It is assumed that the external support organization includes groups written in the bolded part. explained here. It's better to explain the definition of the external support organization here.	x			
121 Japan	NUSSC	2.1.	…… The operating organization shall discharge this responsibility ~~through a management system established~~ in accordance with its own management system that primarily adheres to the requirements of GSR Part 2 [3].	GSR Part 2 says " The operating organization shall discharge this responsibility in accordance with its management system." ISO standards are also the base of MS of operating organization.			x	No change to the meaning of the text.

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122 Japan	NUSSC	2.9. (f)	Processes for maintaining a formally designated design ~~authority~~ entity (see para. 3.15) that has overall responsibility for the continuing integrity of the plant design throughout its lifetime and for managing the interfaces and lines of communication with the designers and equipment suppliers contributing to this continuing integrity.	In SSR-2/1 (Rev. 1), the term " a formally designated design authority " is not used, but rather the term " a formally designated entity ", and then suggested to be replaced. Furthermore, the term “authority” should be avoided in using it in some unit in licensee or operating organization, as the term “authority” is closely related to licensing of nuclear facility and activity.			x	Design authority is the common term used in the industry. SSR-2/1 has started its revision cycle, so we will align the terms.
123 Japan	NUSSC	2.10.	Move to after para. 2.2. of Requirement 1.	This is related to Req. 1 but not to Req. 2.			x	This is something which should be described within the management system.
124 Japan	NUSSC	2.11.	A governance model~~, by which the operating organization of the nuclear power plant and if appropriate, the corporate organization is monitored, controlled and directed,~~ shall be established to monitor, control, and direct the operating organization of the nuclear power plant, and if appropriate, the corporate organization. The interrelated elements for establishing policies and objectives and the means	Clarification.	x			

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			to enable the objectives to be achieved which flow from the governance model, shall be detailed within the integrated management system.					
125 Japan	NUSSC	2.15.	A designated 'design ~~authority~~ entity' ~~shall be established~~, which is required to be established in SSR-2/1 (Rev. 1) to ensure that the overall integrity of the nuclear power plant design is maintained at all stages of the plant lifetime. ~~The objectives, roles, responsibilities and lines of communication of~~ At the stage of commissioning and operation, the design ~~authority~~ entity shall ~~be established, implemented and documented for~~ control the following: (a) Changes to structures, systems and components; (b) Organizational changes; (c) Changes in operating modes; (d) Interfaces with responsible designers, suppliers and contractors; (e) Knowledge management; (f) Ageing management; (g) Transition from operation to decommissioning.	Also, establishment of a formally designated entity is a matter defined in SSR-1/2 (Rev. 1), and therefore the description in SSR-2/2 (Rev. 2) should focus its function at operating stage.			x	See line 122 above
126 Japan	NUSSC	2.16.	The operating organization shall ensure that strategies, policies, objectives and processes for procurement and supply chain management are developed and implemented. The organization shall put in place arrangements with vendors, contractors, and suppliers for specifying, monitoring, and	Inserted the sentence from "Management of the supply chain" of GSR Part 2.			x	Included in 2.5, 2.9(d), 2.16

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			managing the supply to it of items, products and services that may influence safety. The management system shall include arrangements for qualification, selection, evaluation, procurement, and oversight of the supply chain. These shall include:					
127 Japan	NUSSC	2.17.	Where a project management organization is responsible for managing major projects within the operating organization, the project management organization shall adhere to all the requirements that apply to the operating organization and be fully controlled by the operating organization. However, those are not limited to the followings; (a) Give plant safety the highest priority, overriding the demands of production and project schedules. (b) Be established in a manner that is consistent with the operating organization's management system. (c) Support and achieve the operating organization's policies, goals, strategies, plans, and objectives. (d) Establish the long-term human resource requirements for the project.	The original requirements for the project management organization are not sufficient.			x	Already covered in 2.17

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128 Japan	NUSSC	2.20.	Shift teams shall be staffed to ensure that sufficient authorized operating personnel are present to operate the plant in accordance with the operational limits and conditions (see Requirement 6). Where the design involves multiple units or sites operated by one main control room with remote monitoring and intervention capabilities such as SMRs, an assessment of the staffing needs shall be made to ensure that all units can be operated under all conditions in accordance with the operational limits and conditions. The shift staffing patterns, shift cycles and controls on working hours shall provide sufficient time for the training of shift personnel.	Related to the general comment. While it would be acceptable to expand the scope of this publication, some of the proposed paragraphs include novel concepts that are not permitted or discussed in the current SSR-2/1 (Rev. 1), such as the sharing of safety systems and remote control. For this reason, these issues should be considered when developing and revising SSR-2/1 (Rev. 1), independently, without prejudice or restrictions. Therefore, these paragraphs should be deleted at this moment. Otherwise, to make it clear that these do not relax standards for existing reactors, it should be specified that it only applies to innovative reactors such as SMRs.			x	DPP specifically request that SMRs etc. are included in this revision of SSR-2/2 when applicable. The term "where design involves…" covers such situations.

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129 Japan	NUSSC	2.21.	Distractions to control room operators shall be minimized. To avoid overburdening control room operators and to allow them to focus on their responsibilities for safety, activities work shall be scheduled to reduce simultaneous activities ~~work~~ as far as possible.	SSR-2/2 (Rev. 1) uses "activities" instead of "works."	x	Moved to 3.31		
130 Japan	NUSSC	2.29.	The safety policy of the operating organization shall include a commitment to achieving enhancements in operational safety. The strategy of the operating organization for enhancing safety shall focus on finding more effective ways of applying and, where feasible, improving safety in a timely manner, which shall be continuously monitored and supported by means of a clearly specified programme with clear objectives and goals and involvement of plant staff.	Difficult to understand.			x	No alternative text offered
131 Japan	NUSSC	2.31.	The safety policy shall ~~include a commitment to adopt a systemic approach (i.e. an approach relating to the system as a whole in which the interactions between technological, human and organizational factors are duly considered) to optimize organizational strategies, utilization of resources and performance of safety related activities as far as applicable.~~ reflect on the importance of the interaction between technological, human and organizational factors in order to aim for the optimization of organizational strategies, resource utilization, and	The level of description about safety policy in this document should be consistent with that of para. 5.2 of GSR Part 2. Para. 5.2 of GSR Part 2, "Senior managers and all other managers **shall advocate and**	x	The safety policy shall include the establishment of behavioural expectations and the fostering of a strong safety culture and consider the importance of the interaction between technological, human and organizational strategies, resource utilization and performance of safety related activities (see		

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			performance of safety related activities (systemic approach).	**support** the following: ... (f) The means by which the organization seeks to enhance safety and to foster and sustain a strong safety culture, and using a **systemic approach** ...;" Systemic approach is an approach and is not suitable to be reflected in safety policy. Safety policy should reflect the objective of systemic approach, that is, considering the importance of the interaction between technological, human and organizational factors to aim for the optimization of organizational strategies, resource utilization, and performance of safety related activities.		Requirement 12 of GSR Part 2 [3]).		

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132 Japan	NUSSC	2.31.	The safety policy shall include a commitment to adopt a systemic approach (i.e. an approach relating to the system as a whole in which the interactions between technical, human and organizational factors are duly considered) to optimize organizational strategies, utilization of resources and performance of safety related activities as far as applicable (see Requirement 12 of GSR Part 2 [3]).	Align with Requirement 12 of GSR Part 2.	x			
133 Japan	NUSSC	2.33.	The operating organization shall establish and implement an operating experience programme to report, collect, screen, analyse, trend, document/record and communicate operating experience, including initiating events, accident precursors, near misses, accident, and unauthorized acts, at the plant in a systematic way. As part of this programme, the operating organization shall obtain and evaluate available information on relevant operating experience from other national and international nuclear installations to draw and incorporate lessons for its own operations, including its emergency arrangements. The operating organization shall encourage the exchange of operating experience within national and international systems for the feedback of operating experience. Relevant lessons from other industries shall also be taken into consideration, as necessary.	Texts used in SSR-2/2 (Rev. 1) are better to understand.	x	The operating experience programme shall be used to identify, report, collect, screen, evaluate, trend, record and communicate operating experience at the plant in a systematic way. As part of this programme, the operating organization shall obtain and evaluate relevant operating experience from other nuclear installations to incorporate lessons for its own operations, including its emergency arrangements. The operating organization shall encourage the exchange of experience within national and international systems for the feedback of		

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						operating experience. Relevant experience from other industries shall also be taken into consideration, as necessary.		
134 Japan	NUSSC	2.34.	Events with safety implications shall be analysed by the operating organization in accordance with their actual or potential significance. Events with significant safety implications shall be investigated to identify their direct and root causes, including causes relating to design, manufacturing/procurement, installation, operation, maintenance, and/or human performance and organizational factors. Such events shall be analysed by qualified and trained persons with sufficient independence from the line management of the events in question to identify and address organizational issues objectively. The results of such analyses shall be used, as appropriate, to determine and implement corrective actions and lessons to prevent the reoccurrence of a similar event. The collective actions and the lessons shall be utilized, as appropriate, in the relevant plant programmes and associated documentation, including procedures, instructions, guidelines and training/educational materials. Event information, including significant lessons learned from an operating	Texts used in SSR-2/2 (Rev. 1) are better to understand.	x	The operating organization shall use an analysis technique that considers the actual or potential significance of events. The analysis shall be performed by suitably qualified and trained personnel. who are competent in the subject matter under review. Events with safety implications shall be investigated in accordance with their actual or potential significance, to identify their direct and root causes, including causes relating to equipment design, operations, maintenance, human performance and organizational factors. Events with significant implications for safety shall be analysed by persons with sufficient independence from the		

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			experience of the operating organization, shall be shared nationally and internationally in a timely manner to prevent a similar event from occurring.			line management to identify and address organizational issues objectively. The results of such analyses shall be used by the operating organization to implement corrective measures to prevent event reoccurrence. The outcomes of the analyses shall be included, as appropriate, in the relevant plant programmes and associated documentation (training, equipment, operations, maintenance, human performance and organizational programmes). Plant event reports and reports of non-radiation-related accident shall be used by the operating organization to identify tasks for which training might be inadequate.		

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135 Japan	NUSSC	2.35.	Information on a significant operating experience from another nuclear installation shall be reviewed by competent, multidisciplinary persons for its significance based on the actual and potential impact on safety to determine whether any urgent safety actions are necessary for their nuclear power plants.	Clarification.			x	This statement applies to internal and external OE.
136 Japan	NUSSC	2.36.	Repetitive events, including low-level events and near misses, shall be analysed for any precursors to, or trends in, adverse conditions for safety, so that any necessary corrective actions can be taken before more serious conditions arise.	Analysis should also be carried out on repetitive events.			x	Already covered in 2.32 & 2,33
137 Japan	NUSSC	2.37.	As a result of the event analyses, clear recommendations shall be ~~validated by senior management and~~ developed for the responsible managers, who shall take the corrective actions in a timely manner to avoid any reoccurrence of a similar event. Corrective actions, including temporary corrective actions, shall be appropriately prioritized, scheduled, and implemented. They shall be reviewed periodically for~~ their implementation status. Once the actions are complete,~~ their effectiveness ~~shall be reviewed~~. Operating personnel shall be briefed on events of relevance and shall take the necessary corrective actions to make their reoccurrence less likely.	Texts used in SSR-2/2 (Rev. 1) are better to understand.			x	Existing text is clear. Additional wording could in included in SSG-50

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138 Japan	NUSSC	2.38.	The operating organization shall be responsible for ~~instilling~~ promoting a culture among plant personnel that ~~encourages the reporting of~~ they report all incidents and events, including low level events and near misses, potential problems relating to equipment failures, shortcomings in human performance, procedural deficiencies or inconsistencies in documentation that are relevant to safety.	Culture cannot be instilled.			x	Instilling means - gradually but firmly establish (an idea or attitude) in a person's mind. This is appropriate word in this context.
139 Japan	NUSSC	2.39.	The operating organization shall maintain liaison, as appropriate, with support organizations (e.g. manufacturers, research organizations, and designers) involved in the design, construction, commissioning, and operation of the plant to provide these organizations with operating experience feedback and to obtain advice, if necessary, in the event of equipment failure or other events. The operating organization is encouraged to share the screening results and the lessons learned from operating experience in a timely manner with the national regulatory body that has its own operating experience programme.	Lessons learned should be shared among all operating organizations national and world wide.			x	Existing wording covers this point.
140 Japan	NUSSC	3.4.	Managers in the operating organization shall participate in determining the needs for training and in ensuring that operating experience is taken into account in the training. Managers shall conduct periodic evaluations of personnel knowledge and skills and this information shall	1) Missing word. "Demands of production and project schedule" are used many times in this document. If the meaning of this	x	Project needs here means resources, workload etc. so propose to keep the word as it is.		

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			be used to enhance individual's and team training needs. Managers shall be trained in fostering a strong safety culture and shall ensure that the demands of production and project schedule ~~needs~~ do not unduly interfere with the conduct of the training programme.	"production needs" is the same as "demands of production and project schedule", the terminology should be unified.				
141 Japan	NUSSC	3.6.	Training programmes shall be developed and implemented for each position including, if necessary, external support organizations and contractors. The content of each programme shall be based on a systematic approach ~~and shall include the technical, administrative, and operational requirements necessary to undertake the role safely~~. These training programmes shall promote attitudes that help to ensure that safety issues receive the attention that they warrant.	Those texts are not relevant to Req. 8.			x	Existing wording is relevant.
142 Japan	NUSSC	3.8.	Operating experience at the plant, as well as relevant national and international operating experiences, shall be appropriately analysed, screened, and incorporated into the training programme. In addition, specific personnel shall receive training on conducting screening and root cause analysis of an operating experience and on the determination and implementation of corrective actions.	Clarification.			x	Clarification not required.

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143 Japan	NUSSC	3.10.	Training programmes shall be appropriate for specific reactor types and designs, including those involving remote operations, and sites where multiple units are operated from the same main control room such as SMRs, and where technical staff are shared. Training programmes where technical staff are shared shall include the training to respond to the situation where all of facilities in a site are impacted by an event simultaneously.	Related to the general comment. Concerning training programmes where technical staff are shared, it is essential that shared staff can respond to all of facilities in a site where staff are shared when an accidents impact all of facilities in a site simultaneously.	x			
144 Japan	NUSSC	3.11.	Adequate training facilities, including representative simulators, appropriate training materials, and facilities for computer-based training, technical training and maintenance training, shall be made available for the training of operating personnel. Simulator training shall incorporate training for all operational states and for accident conditions and shall simulate realistic responses of plant systems and components.-In the case of multiple unit plants such as SMRs, the simulator shall allow several units to respond simultaneously, if they are controlled within one control room.	Related to the general comment.			x	Clarification not required.
145 Japan	NUSSC	3.23.	The assessment and control of safety related activities shall take into account potential risks associated with interactions between multiple units, shared systems in the case of SMRs and other plant systems.	Related to the general comment.			x	Clarification not required.

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146 Japan	NUSSC	3.26.	No experiments shall be conducted without adequate justification. If there is a need to conduct a non-routine operation or test that is not covered by existing operating procedures, a specific safety review shall be performed, and a special procedure shall be developed and submitted ~~for~~ following the approval procedure in accordance with regulatory requirements.	Clarify that the submission of special procedure should be in accordance with the approval procedures of operating organizations including additional approval by regulatory body, as appropriate.			x	Clarification not required.
147 Japan	NUSSC	3.27.	The assessment and control of safety related activities shall take into account human performance standards, the use of error reduction practices and other measures such as a strong safety culture include evaluating personnel competences, associated training programs, and specified minimum staffing levels. It shall also ensure that human factors are addressed in the design and operation of facilities or activities, including ergonomic design and human-machine interfaces. For existing facilities and activities, aspects of safety culture shall be included in the safety assessment as appropriate.	Use texts from GSR Part 4 (Rev. 1).			x	Not all the proposed text is related to training programmes and is covered elsewhere.
148 Japan	NUSSC	3.29.	The operating organization shall ensure that the competence requirements for staff and contractors who perform safety related activities are identified, documented and communicated and taken into account in training programmes.	Move before para 3.5, as this description is closely related to training.	x			

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149 Japan	NUSSC	3.40.	The operating organization shall determine and implement appropriate corrective actions as a result of the monitoring and review of safety performance. Progress in taking the corrective actions shall be monitored to ensure that actions are completed within appropriate time frames. Any delayed actions shall be reassessed with regard to their impact on safety and the activity concerned, and compensatory measures shall be applied, as appropriate. Completed corrective actions shall be reviewed at planned intervals to assess whether they have adequately addressed the identified safety issues.	To align with the provisions for effectiveness verification in section 9.13 of "Leadership, management and culture for safety, DS513."	x			
150 Japan	NUSSC	3.47.	Where the design involves multiple units or sites operated by a combination of main control rooms, local control rooms and semi-autonomous operations such as SMRs, a control hierarchy of expected operational responses shall be established.	Related to the general comment. While it would be acceptable to expand the scope of this publication, some of the proposed paragraphs include novel concepts that are not permitted or discussed in the current SSR-2/1 (Rev. 1), such as the sharing of safety systems and remote control. For this reason, these issues should be considered when developing and revising SSR-2/1			x	See comments above

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				(Rev. 1), independently, without prejudice or restrictions. Therefore, these paragraphs should be deleted at this moment. Otherwise, to make it clear that these do not relax standards for existing reactors, it should be specified that it only applies to innovative reactors such as SMRs.				
151 Japan	NUSSC	3.48	The remote shutdown panels (often installed in supplementary control room) and all other operational panels containing items important to safety outside the main control room, including emergency response facilities on the site, shall be kept operable and free from obstructions, as well as from non-essential material that prevent their immediate operation. The operating organization shall periodically confirm that ~~the remote shutdown panels and all other operational~~ those panels containing items important to safety and items necessary to emergency are in a state of operational readiness, including proper documentation, communications, alarm systems and habitability.	The installation of supplementary control room and emergency response facilities on the site is required in SSR-2/1 (Rev. 1), and then this para should indicate the importance of their existence and preservation during operation explicitly in this publication.			x	Clarification not required.

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152 Japan	NUSSC	3.50.	The chemistry programme shall be developed prior to normal operation and shall be in place during the commissioning programme. The chemistry programme shall contribute to ensuring safe operation, long term integrity of structures, systems and components, fuel integrity, and minimization of the buildup of radioactive material on the structures (e.g. the inner surface of piping fuel cladding tube, core components), and to ensuring that discharges to the environment are as low as reasonably achievable.	It seems necessary to specify the location of building up radioactive material.			x	Clarification not required.
153 Japan	NUSSC	3.56.	3.56. (a) An exclusion programme for foreign objects shall be implemented and monitored, and suitable arrangements shall be made for locking, tagging, or otherwise securing isolation points for systems or components to ensure safety. (b) The operating organization shall be responsible for ensuring that the identification and labelling of plant equipment (items important to safety and items not important to safety) rooms, piping and instruments are accurate, legible, well maintained, and not degraded.	Divide para. 3.56. into two paras. 3.56. (a) and (b) as SSR-2/2 (Rev. 1). has two separate paras.	x	Created new paragraph.		
154 Japan	NUSSC	3.57.	A fire safety programme shall be established by the operating organization which covers: adequate management for fire safety; fire prevention; fire detection and extinguishing; prevention of the spread of fires; and fire protection for structures, systems, and components important to safety. The fire safety	From SSR-2/2 (Rev. 1).			x	Clarification not required, shall include implies that other aspects can be included as well.

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			programme shall include, but are not limited to:					
155 Japan	NUSSC	3.58.	A comprehensive fire hazard analysis shall be developed for the plant and shall be periodically reviewed and updated. The fire hazard analysis shall reflect the amount and types of ~~coolant,~~ combustible materials (especially sodium in the case of sodium-cooled reactors) and possibility of interaction among multiple unit plants as applicable.	For fire hazard analysis, 'coolant' does not seem to be a main item to consider. If a fire of sodium in a sodium-cooled reactor is considered, it is sufficient to mention sodium as one of the combustible materials.			x	There is usually only one type of coolant per reactor design and using the word coolant covered gases and liquids.
156 Japan	NUSSC	3.62.	At multiple unit sites on which systems are shared such as SMRs, special attention shall be paid to ensuring that the impact of fires and firefighting actions on the safety of all affected or potentially affected units and systems is fully understood.	Related to the general comment.			x	Clarification not required.
157 Japan	NUSSC	3.63.	The non-radiation-related safety[1] programme shall include arrangements for the planning, implementation, monitoring and review of the relevant preventive and protective measures, and it shall be integrated with the nuclear safety programmes and radiation protection programme. All personnel, suppliers, contractors and (where appropriate) visitors shall be trained and shall possess the necessary knowledge of the non-radiation-related safety programme and its interface with other programmes and shall comply with its safety rules and practices. The operating organization shall provide support, guidance and	Add a footnote as SSR-2/2 (Rev. 1) has.			x	Clarification not required

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			assistance for plant personnel in the area of non-radiation-related hazards. Footnote 1: "Non-radiation-related safety" concerns hazards other than radiation related hazards; this is sometimes referred to as industrial safety or conventional safety.					
158 Japan	NUSSC	3.64.	The potential impacts of epidemics and pandemics on the safe operation of a nuclear power plant shall be carefully considered. The operating organization shall implement appropriate measures to protect site personnel and ensure that necessary supplies are available to maintain safe operations.	For better understanding.	x	Wording changed to: The continued safe operation of the nuclear power plant shall consider the effects of unexpected events such as epidemics, pandemics and natural disasters and their potential to impact safety. As appropriate, the operating organization shall implement measures to protect site personnel and to ensure the necessary supplies for safe operation of the plant.		
159 Japan	NUSSC	4.1	The maintenance, testing, surveillance and inspection programmes shall include predictive, preventive and corrective maintenance activities, which shall be undertaken in accordance with a graded approach, based on the safety significance of the activities. Preventive maintenance activities shall be conducted to maintain the availability of structures, systems and components during their service life	Regarding the maintenance, testing, surveillance and inspection, it is necessary to mention about relation to the activity of regulatory body. Operational safety program is subject of the regulatory			x	More appropriate for inclusion in SSG-28

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			by controlling degradation and preventing failures. In the event that failures do occur, corrective maintenance activities shall be conducted to restore the capability of failed structures, systems and components to function within acceptance criteria. The maintenance, testing, surveillance and inspection programmes shall be submitted to the regulatory body for assessment and approval before the commencement of operation, if required by the regulatory body.	approval before the reactor operation.				
160 Japan	NUSSC	4.2.	Particular attention shall be paid to maintenance, testing, surveillance and inspection programmes for novel design multiple unit nuclear power plants, and for plants with alternative operating models and passive safety systems.	Clarify "alternative operating models"	x			
161 Japan	NUSSC	4.9.	A comprehensive work planning and control system shall be implemented by the operating organization to ensure that maintenance, testing, surveillance and inspection activities are properly authorized and performed safely and that safety functions are maintained, and structures, systems, and components are protected. All such activities shall be documented in accordance with the management system of the operating organization. The operating organization shall provide the regulatory body with all necessary assistance to enable it to perform independent inspection, including the provision of unhindered access to the	Regarding the maintenance, testing, surveillance and inspection, it is necessary to mention about relation to the activity of regulatory body. In Japan, operational safety inspections are continuously implemented by the regulatory body.	x	….(such as multiple control rooms and shared services)….added		

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			plant and documentation, if required by the regulatory body. The operating organization shall establish procedures to ensure that relevant information is transferred at shift turnovers and at pre-job and post-job briefings on maintenance, testing, surveillance and inspection activities.					
162 Japan	NUSSC	4.16.	4.16. (a) The operating organization shall establish suitable arrangements to procure, receive, control, store, and issue materials (including supplies), spare parts and components. (b) The operating organization shall use these arrangements to ensure that the characteristics of the materials, spare parts and components are consistent with applicable safety standards and with the plant design. (c) The operating organization shall ensure that storage conditions are adequate and that the materials, spare parts and components are available and are in proper condition for use.	Divide para. 4.16. into three paras. 4.16. (a), (b) and (c) as SSR-2/2 (Rev. 1). has three separate paras.	x			
163 Japan	NUSSC	5.2.	If there are changes in plant configuration, the plant documentation shall be formally revised and issued simultaneously with the changes. If this is not possible, compensatory measures shall be taken, and a deadline shall be set for the revision and issuance of the plant documentation before the compensatory measures become ineffective.	For better understanding.			x	Existing wording is clear.

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164 Japan	NUSSC	5.3.	Particular attention shall be paid to the configuration of instrumentation and control equipment to ensure that the documentation accurately reflects the actual plant parameters present in the equipment.	For better understanding.	x	….'detailing' has replaced the word "indicating"		
165 Japan	NUSSC	5.4.	Particular attention shall be paid to the configuration management of multiple unit nuclear power plants located in shared structures, or which utilize shared systems such as SMRs, to ensure any necessary changes are applied to the correct systems.	Related to the general comment.			x	Not necessary
166 Japan	NUSSC	5.6	Modifications shall be categorized on the basis of their safety significance and impacts of modification shall be evaluated by persons with suitable expertise before implementation. The full impact of any modification on the safety of the nuclear power plant shall be evaluated and, where so required, submitted to the regulatory body for approval before being implemented.	An item which should be evaluated before implementation of modification should be 'impacts of modifications'.			x	Not necessary as included in subsequent sentence.
167 Japan	NUSSC	5.6.	Modifications shall be characterized on the basis of their safety significance and evaluated by persons with suitable expertise before implementation. The safety analysis report shall also be updated in a timely manner to reflect plant modifications that have an impact on safety. Modifications shall be subject to the approval of the regulatory body prior to implementation, in accordance with their safety significance, and in line with the national regulation.	Expression used in SSR-2/2 (Rev. 1) is better to understand.			x	Categorized is a more accepted term. 5.13 & 5.35 covers updating of PSR and hence safety analysis report and 5.6 already covers approval of regulatory body.

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168 Japan	NUSSC	5.13.	The plant management shall establish a system for modification control to ensure that plans, documents, and computer programs are revised in accordance with modifications. ~~The safety analysis report shall also be updated in a timely manner to reflect plant modifications that have an impact on safety.~~	The second sentence is moved to para.5.6. for clarity.			x	Covered in 5.13
169 Japan	NUSSC	5.14.	Where simultaneous modifications are being conducted, the operating organization shall undertake work planning to ensure that these do not affect the safe operation of the plant, especially in the case of multiple unit plant.	For multiple unit plants, special attention should be paid when modifying the unit.	x			
170 Japan	NUSSC	5.23.	The operating organization shall develop specifications and procedures for the procurement, verification, receipt, accounting and control, loading, utilization, relocation, unloading and testing of fuel and core components. A fuelling programme shall be established in accordance with the design assumptions, and details of the programme shall be submitted to the regulatory body if required. It shall be confirmed by means of calculations and measurements that the performance of the core meets the safety criteria. A suitably qualified person shall also confirm that all core alterations comply with approved configurations.	It seems better to clarify the subject "details" indicates.	x			

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
171 Japan	NUSSC	5.30.	For fuel and core components, handling procedures shall be developed to ensure their ~~the~~ controlled movement on the site ~~of unirradiated and irradiated fuel~~, proper storage on the site and preparation for transport from the site. The plans for storage of unirradiated and irradiated fuel shall be submitted to the regulatory body for approval, if required.	At the head of this sentence, fuel and core components are described. Subsequent "movement" should not be limited to only fuels.			x	The grammar is not correct in the proposed amendment, the original wording is better.
172 Japan	NUSSC	5.32.	Before any fuel handling takes place, the operating organization shall ensure that an authorized, trained and qualified person is present, who shall be responsible for control and handling of the fuel on the site in accordance with written procedures. The risks involved in the fuel handling ~~and lifting~~ operation~~s~~, including risks for abnormal fuel configuration with heightened reactivity, shall be considered in the work planning. Access to fuel storage areas shall be limited to authorized personnel.	"Fuel handing operation" could cover "lifting operation".			x	Lifting included to provide further clarity.
173 Japan	NUSSC	Req. 24	Periodic safety review[1] Footnote 1: General requirements for periodic safety review are established in Requirement 24 of the IAEA Safety Standards Series No. GSR Part 4 (Rev. 1), Safety Assessment for Facilities and Activities, [11].	Add a footnote.			x	Want to avoid unsling footnotes unless essential otherwise the document would contain many such footnotes.

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
174 Japan	NUSSC	5.34.	Safety reviews such as periodic safety reviews or safety assessments under alternative arrangements shall be performed throughout the lifetime of the plant, at regular intervals and as frequently as necessary (typically no less than once in ten years). If a new reactor module is added, the ~~frequency~~ schedule of periodic safety review of the nuclear power plant shall be consistent with the date at which the first module was installed.	The last sentence is difficult to understand the meaning. We propose to change it to explain that PSR schedule should be aligned with the date of the first module installation, not the date of the newest module installation.	x	Frequency replaced with periodicity.		
175 Japan	NUSSC	5.39.	The plant management shall establish a system to ensure that plant documentation and design documentation is updated to incorporate outcomes from periodic safety reviews.	Missing word.	x			
176 Japan	NUSSC	5.41.	The purpose, scope and process of equipment qualification shall be defined, and effective and practicable methods shall be used to review upgrade and preserve equipment qualification. A programme to establish, confirm and maintain equipment qualification shall be initiated from the initial design, supply and installation phases and shall include the post-operational phase, if the equipment is needed during decommissioning. The effectiveness of the equipment qualification programme shall be periodically reviewed by the operating organization. The equipment qualification programme shall be integrated with other plant safety programmes and processes,	For better understanding and an error.	x	Kept word established as this fits better in this context and is consistent with the wording used later in this paragraph.		

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
			such as the ageing management programme (see Requirement 26).					
177 Japan	NUSSC	5.42.	The scope and details of the equipment qualification programme shall be documented by the operating organization. They shall be submitted to the regulatory body for review and approval if required by national regulation. Relevant national and international experience shall be taken into account in accordance with regulatory requirements. Additional equipment qualification criteria shall be established for the qualification of equipment that utilizes new materials in structures, systems and components expected to operate in conditions where there is a lack of operating experience on the potential for long-term degradation.	Regulations on equipment qualification programme differs among the Sates.	x			
178 Japan	NUSSC	5.43.	Spare parts shall be stored and transported in a controlled manner to ensure their capability to function as intended during their design lifetime is not compromised. The means of confirming the storage and transport conditions for a spare part shall be commensurate with the safety significance of the part and its vulnerability to damage. See also para. 4.16.	For better understanding and an error.	x			

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
179 Japan	NUSSC	5.48.	A systematic approach shall be taken for the development, implementation and continuous improvement of the ageing management programme, including periodic reviews of its effectiveness.	Error.	x			
180 Japan	NUSSC	5.51. (e)	(e) To review and update ageing management programmes and related operational safety programmes to ensure that new information on new operating conditions, new cooling media, and chemistry properties for new materials and innovative designs are included;	Clarify "new operating conditions, new cooling media"			x	New operating conditions for which there is limited data on long term effects on the SSC eg. elevated temperatures, pressures etc.
181 Japan	NUSSC	5.52. (a)	Arrangements for identifying hazard, and for prevention, monitoring, and mitigation of the impacts of hazards, including credible combinations of hazards;	For better understanding.	x	(a) Arrangements for prevention, monitoring, and mitigation of the impacts of internal and external hazards such as toxic or explosive gases, fires and other hazards identified by the safety assessment , including credible combinations of hazards;		
182 Japan	NUSSC	7.3.	Appropriate arrangements for emergency preparedness and response shall be established by ~~from~~ the time that nuclear fuel is first brought to the site, and the emergency plan and all emergency arrangements shall be in place before the commencement of fuel loading.	Establishment of the arrangements should be done by the time that nuclear fuel is first brought to the site.			x	From is better in this context.

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
183 Japan	NUSSC	8.3.	For modules that are to be built in a factory and transported to a site, some commissioning tests of this type of modules may be conducted in the factory of designer or vendor, and then operating organization shall include the clauses in the contract with the designer or vendor that they ~~shall~~ provide a commissioning programme to enable representatives from the operating organization to witness commissioning tests at the factory and at the site. Also, the contract shall include the clause that they ~~designer or vendor shall also specify~~ conduct any additional tests to be performed on-site and any tests needed to ensure that the safety functions of the modules have not been adversely affected during transportation to the site. Furthermore, similar clause on regulatory witness test at the factory shall be included in the contract, if it is expected.	Modify this sentence, as users of this Guide are regulatory bodies, operating organizations and technical support organizations, and this Guide is not expected to be used directly by designer or vendor. Accordingly, this sentence should be written with the operating organization as the subject. Furthermore, some regulatory witness commissioning test should be addressed.	x	8.3. For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide a commissioning programme to enable representatives from the operating organization, or regulatory body as appropriate, to witness commissioning tests at the factory and at the site. The designer or vendor shall also specify any additional tests to be performed on-site and any tests needed to ensure that the safety functions of the modules have not been adversely affected during transportation to the site.		
184 Japan	NUSSC	8.7.	The commissioning programme shall provide reference data to characterize structures, systems, and components. These reference data shall be retained and used to ensure the safety of the plant and for subsequent safety reviews. Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to	Shall not be limited to severe accidents.	x			

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			fulfil their safety function ~~with regard to severe accidents~~.					
185 Japan	NUSSC	8.9.	During commissioning, the operating, maintenance and testing procedures shall be verified to ensure their technical accuracy and shall be validated to ensure their usability with the installed equipment and control systems. This verification and validation of procedures shall be performed with the participation of future operating personnel and~~, to the extent possible,~~ before fuel handling operations commence on the site. Operating personnel shall be involved in commissioning activities sufficiently in advance to benefit from the knowledge and experience of the personnel performing the commissioning activities. This process shall continue throughout the commissioning of the plant.	"To the extent possible" should be deleted because verification and validation of the procedures must be performed prior to the fuel handling operations commence.	x	8.9. During commissioning, the operating, maintenance and testing procedures shall be verified to ensure their technical accuracy and shall be validated to ensure their usability with the installed equipment and control systems, before fuel handling operations commence on the site. This verification and validation of procedures shall be performed with the participation of future operating personnel, to the extent possible		
186 Japan	NUSSC	8.14.	During ~~construction and~~ commissioning, the plant shall be monitored and maintained to protect plant equipment, to support the testing stage and to maintain consistency with the safety analysis report.	Construction is out of the scope of this document.	x			

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187 Japan	NUSSC	8.15.	During ~~construction and~~ commissioning, a comparison shall be performed between the as built plant and its design parameters. A comprehensive process shall be established to address non-conformances in design, manufacture, construction and operation. Resolutions to correct differences from the initial design and non-conformances shall be documented.	Construction is out of the scope of this document.	x			
188 Japan	NUSSC	9.5.	~~For~~ During decommissioning of a part of unit at some multiple unit plant~~s~~, appropriate measures shall be implemented to ensure that common systems and common equipment remain fully available to support the safe operation of all the operational units.	Clarify that this paragraph relates the case when a part of units are being decommissioned and other units are operational.	x	9.5. During the decommissioning on multiple unit plants, appropriate measures shall be implemented to ensure that common systems and common equipment remain fully available to support the safe operation of all the operational units.		
189 Japan	NUSSC	Ref. [11]	INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment for Facilities and Activities, IAEA Safety Standards Series No. GSR Part 4 (Rev. 1), IAEA, Vienna (2016).	Missing.	x			
190 Ukraine	NUSSC	5.18	When fuel of a new or modified design is to be introduced, it shall be demonstrated that the plant and fuel behaviour will be within the established criteria for normal operation, anticipated operational events **and** design basis accidents ~~and design extension conditions~~.	Criteria could be not established for DECs.	x			

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191 Ukraine	NUSSC	5.20	Events with low probability but high consequences that could cause ~~core damage or spent fuel accidents~~ **damage of core or spent fuel** shall be analysed.	Not all spent fuel accidents should be analysed.			x	Grammar is correct
192 Ukraine	NUSSC	5.21	If the criticality safety of fuel in the ~~spent~~ fuel storage is ensured with fixed absorbers, …	Fresh fuel storage should be covered as well.	x	Fresh fuel storage added		
193 Ukraine	NUSSC	5.27	… In addition, appropriate emergency operating procedures and severe accident management guidelines shall be established to manage events and accidents during the handling and storage of ~~irradiated~~ fuel.	Procedures and guidelines should be established for fresh fuel as well.	x			
194 Ukraine	NUSSC	5.32	… The risks involved in the fuel handling ~~and lifting operations~~, including risks for abnormal fuel configuration with heightened reactivity, shall be considered in the work planning.	Fuel handling includes lifting operations	x	….fuel handling and associated lifting operations		
195 Poland	NUSSC	General - terminology	2.7, 2.16, 3.15, 3.48, etc. – use of terminology like: components, items and equipment 2.3, 3.12, 3.34, 3.37, requirement 50, 6.10, 8.1 – authorization and licence are used interchangeably	Please verify for consistency of those terms in the whole text			x	Items is appropriate for 2.7 & 2.16; equipment is appropriate for 3.15, 3.48 as these are the commonly used terms Authorizatioa n and licence can be used interchangeabl y depending on the context.

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196 Poland	NUSSC	General – structure	Propose to move requirement 24 "periodic safety review" into section 3 as requirement 12, after "monitoring and review of safety performance"	Following the monitoring and review of safety performance with periodic safety reviews will give the reader a full information on safety reviews in the subsequent requirements. It will also be easier to look for repetitions and potential to merge some paras. It is also not clear why PSR was under NPP engineering section.			x	Monitoring and review of safety performance is a daily ongoing activity whereas Periodic safety review is a periodic activity and they have different purposes.
197 Poland	NUSSC	1.2	Include GSR Part 4, Safety Assessment for Facilities and Activities in the harmonized IAEA Safety Standards	Requirement 24 of GSR part 4 on maintenance of safety assessment states that safety assessment shall be updated at commissioning and operation stages, and then periodically reviewed. Concurrently requirement 24 of this draft concerns periodic and systemic safety reviews. This requirement is therefore connected to GSR part 4. There are also other paras in the draft that pertain to safety assessment.	x			

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198 Poland	NUSSC	1.9	This publication follows the relationship between principles and objectives for safety, and safety requirements and criteria.	That was true for the version of the document that is being revised. This draft does not explicitly discuss safety objectives and principles.			x	This was specifically removed at the request of NOSC.
199 Poland	NUSSC	2.9	The management system ~~for a nuclear power plant~~ of the operating organization, shall include:	Consistency with previous paras			x	Included for clarity
200 Poland	NUSSC	2.15	A designated 'design authority' shall be established in the operating organization of nuclear power plant	Otherwise, it is not clear who should establish the "design authority".			x	Doesn't necessary need to be in the operating organization, it can be a contractor but it needs to be clear who it is.
201 Poland	NUSSC	2.15	(g) Transition from commissioning to operation and from operation to decommissioning.	To take into account also insights from the commissioning stage	x			
202 Poland	NUSSC	2.20	Where the design involves multiple units or sites operated by one main control room with remote monitoring and intervention capabilities, an assessment of the staffing needs shall be made to ensure that all units can be operated under all conditions in accordance with the operational limits and conditions.	To check the consistency with requirement 65 of SSR 2/1 rev.1 – this IAEA safety standard on the design of NPPs does not foresee the remotely operated main control rooms. Propose to delete.			x	DPP included consideration of alternative reactor designs such as SMRs etc.

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203 Poland	NUSSC	2.29	he safety policy of the operating organization shall include a commitment to ~~achieving enhancements~~ continuous improvement in operational safety.	Consistency with SSG-72	x			
204 Poland	NUSSC	2.35	Information on operating experience shall be reviewed by a competent, multidisciplinary team for its significance based on the actual and potential impact on safety and on the implementation of any urgent safety actions.	The highlighted part is hard to understand. Does it mean to say that the multidisciplinary team shall assess what urgent corrective actions shall be undertaken as a result of reviewed operating experience?	x	Yes that is correct.		
205 Poland	NUSSC	3.7	In addition, improvements shall be made by the timely update of the training programmes, facilities, computer models, simulators and materials **(see para. 4.28)** to ensure that they adequately reflect current plant ~~conditions~~ configuration and operating policy,	There is no para 4.28 Plant conditions might be more temporary; plant configuration is more aligned with further requirements (req. 21 and 12)	x			
206 Poland	NUSSC	3.8	~~Operating experience at the plant, as well as relevant experience from other plants, shall be appropriately assessed~~ Operating experience findings shall be incorporated into the training programme.	Clarity. Previous sections already required the assessment of operating experience from both the plant and other sources, it would be repetitive to state that in this para, which relates to training requirements.			x	Would like to keep it in as there is often a disconnect between what happens at other NPPs which should be captured in training programmes, not just OE but for example information

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								from benchmarking activities.
207 Poland	NUSSC	3.9	In addition, specific personnel that will be involved in analysis of operational experience shall receive training on conducting direct cause analysis and root cause analysis of an event and on the determination and implementation of corrective actions.	Clarity. To provide more detail on functions of the specific personnel. Direct cause analysis should also be included in the training, to maintain consistency of this analysis in the organization.	x			
208 Poland	NUSSC	3.10	Training programmes shall be appropriate for specific reactor types and designs~~, including those involving remote operations, and sites where multiple units are operated from the same main control room, and where technical staff are shared.~~	As for comment no. 8			x	Same reason as comment above
209 Poland	NUSSC	3.12	The plant shall be operated within the operational limits and conditions to prevent ~~situations arising~~ events that could lead to anticipated operational occurrences or accident conditions, and to mitigate the consequences of such events if they do occur.	Consistency with end of the sentence and broadly with postulated initiating events.	x	The plant shall be operated within the operational limits and conditions to so that if situations arise that could lead to anticipated operational occurrences or accident conditions, measures are taken to mitigate the consequences of such events if they do occur.		

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210 Poland	NUSSC	3.12	The operational limits and conditions shall be developed for ensuring that the plant is being operated in accordance with the design assumptions and safety objectives and principles ~~intent~~, as well as in accordance with its licensing conditions.	Clarity. The intent is to operate the plant according to safety objectives and principles			x	True but not required as safety objectives and principles are too high a level.
211 Poland	NUSSC	3.13	All operational limits and conditions shall be substantiated by a written ~~statement of the reason~~ justification for their adoption and their relation to safety.	Clarity	x	All operational limits and conditions and the basis for their derivation shall be defined, documented through a controlled process and made available for the reference of all users requiring an understanding of the basis for safe plant operation.		
212 Poland	NUSSC	3.15	For first of a kind system, a conservative approach shall be used to establish operational limits and conditions and then shall be reviewed and, as necessary, adjusted after operating experience has been accumulated.	Clarity.			x	Unnecessary as the subject is clear from the first sentence.
213 Poland	NUSSC	3.16	The operational limits and conditions shall include requirements for all modes of normal operation, ~~including shutdown and outage stages~~, and shall cover actions to be taken and limitations to be observed by the operating personnel.	Terminology and consistency with SSG-70, introduction of all modes of normal operation reduces the need to provide examples of those modes	x	The operational limits and conditions shall be defined for a set of plant operating states based on the approved design of the plant including requirements for all modes of normal operation, (including		

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						shutdown and outage stages), and shall cover actions to be taken and limitations to be observed by the operating personnel.		
214 Poland	NUSSC	3.20	The operating organization shall undertake an investigation into the event under its operating experience programme and shall notify the regulatory body in accordance with the established event reporting system.	To make a clear connection between the events occurring at NPP and operating experience programme			x	Unnecessary additional wording
215 Poland	NUSC	3.22	Risk assessments which use a graded approach to determine the controls and measures to be applied shall ensure ~~that any grading that is performed ensures~~ that safety functions are ~~preserved~~ fulfilled, that ~~the licence and~~ operational limits and conditions are not challenged and there are no negative effects on the safety of the ~~workforce~~ workers, the public or the environment.	Clarity and terminology. It is hard to understand what challenging the licence without challenging the OLCs would mean.	x	…licence deleted but all other words retained as this provides clarity to ensure graded approach is not misapplied.		
216 Poland	NUSSC	3.24	The assessment and control of safety related activities shall ensure preservation of the safety provisions that prevent occurrence of mechanisms or combination of mechanisms ~~from occurring~~ that might challenge the performance of the safety functions and compromise defence in depth.	Clarity			x	The sentence reads both ways.

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217 Poland	NUSSC	3.26	[…] special procedure shall be developed and submitted to regulatory body for approval in accordance with regulatory requirements.	Clarity and consistency within the text			x	unnecessary
218 Poland	NUSSC	Requirement 13	REQUIREMENT 13: ~~OPERATION~~ CONTROL ROOMS AND CONTROL EQUIPMENT The operating organization of the nuclear power plant shall ensure that the ~~operation~~ control rooms and control equipment are maintained in a suitable condition.	Consistency with SSG-76 and IAEA glossary, there is no "operation control room" mentioned in those publications	x			
219 Poland	NUSSC	3.46	The habitability and good condition of control rooms ~~(in plant or remote)~~ shall be maintained.	As for comment no. 8			x	Same reason as before
220 Poland	NUSSC	3.48	In 66 of SSR 2/1 Rev.1 and SSG-76 remote shutdown panels and other operational panels were contained under supplementary control room	Please verify consistency			x	NPPs have operational panels outside of control rooms, these needs to be kept clear of obstructions as well. Not all control panels are contained within control rooms.
221 Poland	NUSSC	3.65	Records of site evaluation, design, construction, commissioning and operation, including maintenance and surveillance activities,	Construction also an important stage in the lifetime of the plant			x	Construction is out of scope of this document

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222 Poland	NUSSC	5.21	[…] and that ~~any~~ potential degradation mechanisms of the neutron absorbing properties ~~is~~ are considered in the ageing management of the absorbers.	Clarity	x			
223 Poland	NUSSC	5.22	A means of monitoring the status of core cooling and spent fuel cooling in all operational states shall be provided.	Following the justification for the revision provided in DPP	x			
224 Poland	NUSSC	5.24	The operating organization shall establish a safe reactivity management programme that is part of a **quality** management system.	Should it say integrated management system?	x			
225 Poland	NUSSC	8.1	The commissioning programme for the plant shall cover the full range of plant conditions specified in the design and the safety ~~case~~ assessment.	Consistency.	x			
226 Poland	NUSSC	8.1	The programme shall demonstrate that the behaviour of the plant as built is in compliance with the design assumptions, **that it meets the requirements of the safety analysis report**	Difficult to understand what is the intention of the highlighted part, please provide clarification.	x	Safety analysis report changed to safety assessment		
227 Poland	NUSSC	8.7	Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety functions ~~with regard to severe accidents~~ in accident conditions.	Passive safety systems are also used on level 3 of DiD, so during design basis accidents.	x	Sentence now ends with safety functions		

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228 Uruguay	NSGC	2.4	The management system shall integrate all the elements of management so that processes and activities that might affect safety are established and conducted coherently with other requirements,including requirements in respect of leadership, protection of health, human performance, protection of the environment, security and ***levels of power prodution and*** quality, ~~and~~ so that safety is not compromised by other requirements or demands.	Power production and quality are the main benefit that the NPP renders to the society of its country. They should be managed coherently with management of its risks.			x	The focus of the Safety Standard is the safe operation of the plant so we don't tend to include power production requirements.
229 Uruguay	NSGC	2.5	The management system of the operating organization shall provide for arrangements to ensure safety in activities performed by external support organizations. Responsibility for activities performed by external support organizations, and for their overall control and supervision, shall rest with the operating organization. The operating organization shall establish a system for the supervision of work performed by external support organizations. It shall be the responsibility of the operating organization to ensure that the personnel of external support organizations who perform activities on structures, systems or components important to safety, or who undertake activities affecting safety, are qualified ***and security cleared – according to national rules and as required for NPP staff requirements-*** to perform their assigned tasks. The	Mitigation of insider threats are key to nuclear security, as established by IAEA NST065 (ESTABLISHMENT AND IMPLEMENTATION OF A TRUSTWORTHINESS PROGRAMME IN NUCLEAR SECURITY, 2023), so, external personnel entering and workind inside facilities should be properly cleared.			x	Security requirements are dealt with in the Nuclear security Series of IAEA standards.

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			contracted activity shall be clearly specified in writing and shall be approved by the operating organization prior to its commencement.					
230 Uruguay	NSGC	2.15 (c)	Changes in operating modes ***and adaptation for updated regulatory requirements or lessons learned***;	The design authority of the NPP must have proper responses to lessons learned for the nuclear industry and updated regulatory requirements that could lead to changes in operating modes, as well as safety margins, etc.			x	This is cover elsewhere in Requirement 7
231 Uruguay	NSGC	2.18	The operating organization shall be responsible for ensuring that the necessary knowledge, skills, attitudes and safety expertise are sustained at the plant, and that there are adequate provisions for ensuring long term human resources. ***Provisions to ensure security clearance, at appropiate levels are met, for key or safety related positions shall be implemented as per national rules and applicable criteria.***	Similar basis as in our comment 2. to paragraph 2.5.			x	See comment above
232 Uruguay	NSGC	2.23 (c)	Ensure adequate knowledge of the design and of the overall basis for safety, ***including proper management of failures and incidents***;	Safety clearly relies on design, but also on proper reactive systems in response to incidents, before they become			x	This aspect is covered elsewhere in the document

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				accidents. Proper knowledge of incident management is so, key to safety and must be maintained and shared.				
233 Uruguay	NSGC	3.11	Adequate training facilities, including representative simulators, appropriate training materials, and facilities for computer-based training, technical training and maintenance training, shall be made available for the training of operating personnel. Simulator training shall incorporate training for all operational states and for accident conditions and shall simulate realistic ~~responses~~ ***response-performance*** of plant systems and components, ***including degraded response of some components, due to the accident itself, in the case of accident simulation.*** In the case of multiple unit plants, the simulator shall allow several units to respond simultaneously, if they are controlled within one control room.	Response of any individual plant safety system, should not be assumed as always ideal. Simulators must address realistic (not always 100%) performance of systems and also account for cases where an accident not only triggers nuclear reactor dangerous behaviour, but also service outage (power failure, damage, loss of instrumentation) of some safety components.			x	Training for all operational states includes accident conditions.
234 Uruguay	NSGC	3.15	The operational limits and conditions shall be established taking into account appropriate margins commensurate with the risks and uncertainties associated with equipment for which limited operating experience exists, and with novel or innovative technologies. ***If uncertainties about some initiating events for the site are significative, these uncertainties shall also be***	Likelihood of initiating events that could trigger a major accident are key to the risk assessment, but sometimes there is limited experience at the site for some specific events (earthquake, tsunami, plane crash, huge			x	This is already covered in the first sentence.

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			accounted for into safety limits and margins. For first of a kind systems, a conservative approach shall be used and then shall be reviewed and, as necessary, adjusted after operating experience has been accumulated.	floods). If there are such uncertainties for the initiating events, they must also be considered into safety margins to ensure safety.				
235 Uruguay	NSGC	3.22	All routine and non-routine operational safety related activities shall be assessed for potential risks. The level of risk assessment undertaken shall depend on the safety significance of the task. Risk assessments which use a graded approach to determine the controls and measures to be applied shall ensure that any grading that is performed ensures that safety functions are preserved, that the licence and operational limits and conditions are not challenged and there are no negative effects on the safety of the workforce, the public or the environment.	Just an editing comment. There is an unnecessary point inside text.	x			
236 Uruguay	NSGC	3.37	Monitoring of safety performance shall include the monitoring of: personnel performance; attitudes to safety; response to infringements of safety; and violations of operational limits and conditions, operating procedures, regulatory requirements and licence conditions. The monitoring of plant conditions, activities and attitudes of personnel shall be supported by systematic coaching and observation of personnel and walkdowns of the plant by managers at all levels. ***Performance of safety-related***	Failure frequency of many systems and components are always considered in Probabilistic Safety Assessments, usually according to historic global experience. For some site- specific conditions or for first-of-a-kind designs there could			x	This is done during PSR Requirement 24.

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			equipment, especially actual failure frequency compared to anticipated or assumed failure frequency should also be monitored.	be some uncertainty about these frequencies, so, they should be actually monitored at the NPP and compared to frequencies assumed for the PSA.				
237 Uruguay	NSGC	3.46	The habitability and good condition of control rooms (in- plant or remote) shall be maintained, ***including use of duplicated or remote control rooms if some accidental hypothesis could result in main control room unhabitable***. Where the design of the plant foresees additional or local control rooms that are dedicated to the control of processes that could affect plant conditions, clear coordination and prioritization of verbal and written information shall be established for ensuring effective transfer of information between these control rooms and the main control room.	Some kinds of accidents (e.g.: fire, radioactive gases release) could render areas inside NPP unhabitable, in spite of any measures taken. So, alternative control rooms must be available in order to ensure NPP operation or management in any accidental hypothesis.			x	Already covered in first part of the sentence.
238 Uruguay	NSGC	3.54	The use of chemicals in the plant, including chemicals brought in by contractors, shall be monitored closely. The appropriate control measures shall be implemented to ensure that only authorized chemicals are used in the plant and the use of these chemicals does not adversely affect equipment or lead to its degradation. ***Plant accidents emerging from chemical accidents***	Proper use of chemicals must be ensured to avoid, for instance, corrosion of equipment by caustic chemicals. But improper use, storage or transport of some chemicals, could also trigger			x	Already covered in the text and in Requirement 17

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			(e.g.: fire, explosions, unhabitable áreas) due to improper storage or transport, should be avoided, establishing clear procedures and proper facilities.	no n-radiation accidents which could impair nuclear safety by impacting staff, equipment, critical areas. These hazards should be efficiently prevented. These situations are addressed in para. 5.52 (j) but only referred to new chemicals, not conventional or usually managed chemicals.				
239 Uruguay	NSGC	5.28	Radiochemistry data that are indicative of fuel integrity shall be systematically monitored, ***compared to established baselines*** and analysed for trends so that fuel integrity is ensured under all operating conditions.	Measurement of activity concentrations of some radionuclides in specific environments, as reactor coolant, are indicators of fuel/ reactor integrity. Baselines of "normal" activity concentration for each of these radionuclides should be established to ensure			x	Unnecessary additional text as already covered in first part of the sentence.

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				monitoring will result in a clear safety picture, by comparing actually measured values to baselines.				
240 Uruguay	NSGC	5.52 (d)	Communication arrangements with appropriate regional and national organizations regarding the forecast ***and coordinated mitigation*** of external hazards;	Many organizations external to the NPP could provide valuable info about hazards forecast, for instance related to anticipated severe storms, hurricanes, tsunamis, as the text explains. In addition, in an emergency hypothesis, a successful management could require coordinated efforts between the NPP and some external organizations for population transport, distribution of NaI pills, etc.	x			

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241 China	NUSSC	General	It is recommended to revise based on the framework of SSR-2/2(2016 edition) particularly focusing on specific operational activities. The adjustments should follow the sequence of: commissioning, operation, maintenance, emergency and accident management, and decommissioning preparation.	The current standard framework lacy clarity, making it difficult to clearly define the responsibilities of various stakeholders such as the operating organization, operational personnel, and regulatory bodies.			x	The 2016 framework was seen as confusing hence the reason for restructuring the document.
242 China	NUSSC	1.7	The main text need to explicitly address the unique commissioning and operational requirements for transportable reactors and microreactors.	This publication establishes requirements on the safe commissioning and operating of nuclear power plants, includes "transportable reactors and microreactors",			x	This is a requirements document, further details on explicit commissioning paragraphs will be included in the revision of SSG-28
243 China	NUSSC	3	It is recommended to adjust the requirements 7,8,9,10,11,15,16,17 to the chapters of "management of operational safety "	The above requirements applies not only to operational activities but also to commissioning, maintenance, and other phases			x	See above and Requirements have been matched to “best-fit’ the sub-chapters in the document.
244 China	NUSSC	Requirement 9 para 3.17 line 6	(e) Action statements for deviations from normal operation and Action completion time.	The action completion time is recommended to be added as the supplementary requirements of the action, when deviations from normal operations occur.	x			

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245 China	NUSSC	Requirement 10 3.28	In the performance of safety related activities, written communication shall be preferred~~, and spoken communication shall be minimized~~. If spoken communication is used, attention shall be given to ensuring that spoken instructions are clearly understood.	spoken communication is a very important communication method in practical,it is suggested not to emphasize “minimized”	x			
246 China	NUSSC	3.30	Aspects of the working environment at the nuclear power plant that influence human performance (e.g. ergonomics, workload, distractions) and the effectiveness and fitness of personnel for duty shall be identified and controlled. Tools for enhancing human performance shall be used as ~~appropriate~~promoted to support operating personnel and a defence in depth approach shall be applied to safety related activities in plant operations.	It should be widely promoted and used.			x	Used as appropriate depending upon the safety significance of the task being undertaken.
247 China	NUSSC	para3.57(b) line 769	Control of combustible materials, combustion-supporting substanceand ignition sources, including during outages	Editorial It should also include the combustion-supporting substance.			x	Covered under term combustible materials
248 China	NUSSC	requirement 21	It is recommended to add the requirement of configuration risk management requirements " Operating organization should establish a risk management system for the configuration of nuclear power plants, enabling quick and effective risk assessment when changes occur due to equipment failure, maintenance, or testing, and allowing for appropriate risk management measures to be implemented."	configuration risk management is a important risk management measure assessments for nuclear power plant			x	Configuration management risk are dealt with by the organizations’ risk management process rather than by a specific configuration risk process

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249 China	NUSSC	requirement 28 5.52.e	Requirement 28 should modify to the Requirement 15	Requirement 15 is“MATERIAL CONDITIONS AND HOUSEKEEPING”	x			
250 China	NUSSC	requirement31 7.2	(see para. 5.45). should modify to (see para. 3.64)	/	x			
251 China	NUSSC	para8.1 line 1445	The commissioning programme shall provide the operating organization and the regulatory body with the means of identifying hold points in the commissioning process for which approval shall~~may~~be required prior to continuing to the next stage.	Editorial It is suggested to change “may” to “shall”. It is a requirement.	x	….may has been retained as the regulatory hold points very from country to country.		
252 China	NUSSC	para8.7 line 1473	Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety function with regard to design basis accidentsorsevere accidents.	Editorial It is suggested to add “design basis accidents or”. If the passive safety systemsare engineered safety features, it involves design basis accidents.	x	Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety functions.		

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253 USA	NUSSC	7.19	…This shall be safety related equipment as far as possible for design basis accidents. Items not important to safety (e.g. conventional equipment) may be used for severe accidents.	Consider differentiating equipment classification standards based on accident type.			x	This level of detail could be included within a SG.
254 USA	NUSSC	7.20	The acquisition and use of additional offsite assistance and equipment should be considered for severe accidents.	Consider adding new sentence to end of paragraph. Based on severity of accident, onsite equipment could be lost.	x	Included in 7.19		
255 USA	NUSSC	8.1/7	The Commissioning program should ensure there is flexibility to select a representative sample of inspections throughout any construction area.	Suggestion based on lessons learned from Vogtle 3 and 4			x	Already included in 8.1. How it is achieved could be included within a SG
256 USA	NUSSC	8.12/7	The commissioning program should consider whether it would be appropriate to identify “start-up Technical Specifications” that become effective only after achieving initial criticality, recognizing the reduced hazard presented by a core that has not gone critical.	Suggestion based on lessons learned from Vogtle 3 and 4			x	More appropriate in SSG-28
257 USA	NUSSC	8.15/3	The comprehensive process should provide methods for ensuring effective and timely communication to resolve issues. Methods should include facilitating regular stakeholder interactions.	Suggestion based on lessons learned from Vogtle 3 and 4			x	Covered in 8.13 & 8.15

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258 USA	NUSSC	The document's *objective* and *scope* (Sections 1.5–1.8) prioritize safety as the means of protecting people and the environment.	Add language to the Introduction (e.g., 1.5 or 1.6) clarifying that *"nuclear safety and security share a common overarching goal — to protect people, society, and the environment through complementary and coordinated measures."*	The interlinked purpose of nuclear safety and security for social benefit is not emphasized.			x	Link to safety fundamentals was removed and replaced with the objective statement in 1.5
259 USA	NUSSC	Requirement 6 states that safety and security must be managed so they "do not compromise each other"	Consider adding guidance under requirement 6 or 2.10 about inter-authority collaboration mechanisms, such as: • Joint safety-security interface committees • Memoranda of Understanding between regulators Shared oversight protocols	Document needs more detail on inter-agency coordination should be structured.			x	Too detailed for a safety requirement standard. Could be included in SG
260 USA	NUSSC	Requirement 8 Qualification and training of personnel	Recommend including provisions for: • **Cross-training of personnel** in nuclear safety and security interfaces. Shared training simulations to develop familiarity with interface challenges.	Document lacks cross-disciplinary training or mention of mutual knowledge in safety and security.			x	Outside the scope of this document

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261 China - RAS	RASSC	Para 2.20/Line 3 Para 2.28/Line 3 Para 3.7/Line 4 Para 5.41/Line 9 Para 5.43/Line 4 Para 5.46/Line 2 Para 5.52/(e) Para 7.2/Line 3	"see Requirement ~~6~~ **9**" "see Requirement ~~12~~ **24**" "see Para. ~~4.28~~ **3.11**" "see Requirement ~~14~~ **2**" "See also Para. ~~8.16~~ **4.16**" "See Para. ~~4.80~~ **5.49**" "see Requirement ~~28~~ **15**" "See Para. ~~5.45~~ **3.64**"	These are wrong citations.	x			
262 China - RAS	RASSC	Para 3.53	Add "The radiochemistry data about corrosion-activation products can also inform the specification and management of easily activated materials during the design of new NPPs." at the end of this paragraph.	During the operation phase of a nuclear power plant, the collective dose is primarily due to the external exposure of outage workers to corrosion-activation products deposited in the piping.			x	Too detailed for inclusion in this document
263 China - RAS	RASSC	Para 5.10/Line 1	"Temporary modifications shall be limited in time and number to minimize the cumulative safety risks ~~significance~~."	The term **"risks"** may be more suitable than **"significance"** according to the context .			x	Significance better describes the cumulative effect
264 China - RAS	RASSC	Para 1.10/Line 3 Para 2.8/Line 2 Para 2.12/Line 1	"Section ~~7~~ **5**…" "(see … for Safety [9])." "Safety committee(s) for …" "…team's training needs." "~~7.1~~"	Editorial issues.	x			

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		Para 3.4/Line4 Page 43/Line 14						
265 ENISS	NUSSC WASSC	REQUIREMENT 1	Requirement 1: Responsibilities of the operating organization Of THE POWER PLANT The operating organization of the power plant shall have the prime responsibility for safety in the operation of a nuclear power plant.	The addition of "of the power plant" for operation organization avoids the confusion with the operation organization of the corporate, which is not concerned by the SSR 2/2.	x			
266 ENISS	NUSSC WASSC	2.18	The operating organization shall be responsible for ensuring that the necessary knowledge, skills, attitudes and safety expertise are sustained at the plant or at technical support organizations, and that there are adequate provisions for ensuring long term human resources.	It would be important to indicate that certain skills and resources (e.g. safety analysis capabilities) may not be at the plant itself but permanently provided by external technical support organizations (TSOs). The distinction would be important, since ensuring the constant and long term availability of TSO resources (staff, knowledge) involves different kind of challenges.			x	TSO would be classified as a contractor so training and skills requirement of contractors included in Requirement 8

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267 ENISS	NUSSC WASSC	3.33	(…) Prior to the restart or the resumption of normal production schedule after an abnormal transient on ~~full~~ power, the operating organization shall perform the necessary corrective actions, including inspection, testing and repair of damaged structures, systems and components, and shall revalidate the safety functions that might have been affected.	Not all plants are running baseload at all times, so "resumption of full power" should be generalised to "normal production schedule" for more minor transients (e.g. RCP stop without scram, for plants where that is possible).	x	Full power deleted		
268 ENISS	NUSSC WASSC	3.50	~~The chemistry programme shall be developed prior to normal operation and shall be in place during the commissioning programme~~. The chemistry programme shall contribute to ensuring safe operation, long term integrity of structures, systems and components, fuel integrity, and minimization of the buildup of radioactive material, and to ensuring that discharges to the environment are as low as reasonably achievable	The first part of the text refers to commissioning, not to plant operations. This sentence should be moved to the section 8 "commissioning of nuclear power plant".			x	But it relates to the Chemistry programme, so prefer to keep it where it is.
269 ENISS	NUSSC WASSC	5.16	Before commissioning a modified system, structure or component or putting the system, structure or component back into operation after modifications, personnel shall be trained, as appropriate, with regard to the significance of the modification, and all relevant documents necessary for plant operation shall be updated. ~~This training and update of documents shall be done before the modification is put into service.~~ The training and update of documents shall be timely and consistent with	The practical implementation of all modifications to all plant documentation *before* the modification is implemented is not the member state practice, and also not feasible, categorically. In practice, it is only possible to update the P&I diagrams and operating instructions, not all plant	x			

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			the safety significance of each document and modification.	documents. In practice, the documents have an update cycle relevant to their nature, and only documents immediately relevant to operation can be modified immediately with the plant. This is also recognised by para 5.2.				
270 ENISS	NUSSC WASSC	5.34	"module" has to be defined	Definition needed to ensure correct understanding			x	There is no official Agency definition for "module", this term is used to describe the new concepts of modulization of reactor units for SMR designs and is also mentioned in SRS123
271 ENISS	NUSSC WASSC	5.45	The programme shall include a consideration of environmental and operational ~~stressors~~ condition (e.g. medium, temperature, pressure, radiation, humidity) and potential degradation mechanisms (e.g. fatigue, corrosion, thermal and radiation ageing).	To complete	x	Pressure and thermal added. Stressors is the common term used in ageing management. Medium not added as this can confuse, and the list is not meant to be exhaustive		

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272 ENISS	NUSSC WASSC	§8.1	The commissioning programme shall cover the functions credited on the full range of plant conditions specified in the design and the safety case	For clarification.			x	Proposed clarification is confusing, prefer to use original wording.
273 ENISS	NUSSC WASSC	Section 8	Please replace 'stage' by: • 'Sequence' or 'phase' • 'step' 'procedure'	Comment on the common/ usual vocabulary used for the Commissioning practice. Commissioning Programme is divided into Commissioning Sequences or Commissioning Phases. Those are common for PWR, such as, for examples: • Nuclear Circuit Cleaning + Cold Functional Tests Reactor Vessel Open, • Secondary Hydrostatic Pressure Test, • Cold Functional Tests, • Hot Functional Tests, • First Core Loading, • Precritical Tests, • Power Escalation. Then each Commissioning Phase	x	Phases used instead of stages but I don't see what else you want to change in the text.		Note: SSG-28 also refers to commissioning stages but as this document will also be revised in next few years we can standardise on the term phases

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				or Sequence will rely on a succession of Commissioning Procedures to be performed. The 'test objectives' and 'Acceptance Criteria' are included in those Commissioning Procedures. That is the reason why the word 'stage' is not appropriate in the Commissioning standardor, so it is proposed to replace it by either 'step' if it addresses a planning, or 'procedure' if it addresses an operation.				
274 ENISS	NUSSC WASSC	§8.3	For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide an off-site test ~~a commissioning~~ programme to enable representatives from the operating organization to witness ~~commissioning~~ the factory acceptance tests ~~at the factory and at the site~~. The designer or vendor shall also specify any additional tests to be performed on-site and any tests needed to ensure that the safety functions of the modules have not been adversely affected during transportation to the site.	Proposed changes for important clarification: - Preferrable to use "test programme" instead of "commissioning programme" for the testing activities to be conducted off-site. According to the usual definition, 'Commissioning Tests' are on-site tests, by opposition to the 'Factory Acceptance Tests' which take place			x	The existing wording is clear and the term commissioning programme is the more general term to describe both factory and at site testing.

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				outside of the plant site. - In addition it seems clearer to focus on the tests made off-site in the modified sentence as the next one focuses on on-site tests.				
275 ENISS	NUSSC WASSC	§8.5	The operating organization shall be responsible for ensuring that construction activities are ~~of appropriate quality and that information and documentation on the completion of commissioning activities and comprehensive baseline data are provided.~~ at the appropriate level of completion, the follow-up of the commissioning activities are up-to-date.	The sentence covers: 1/ construction phase; 2/ commissioning phase; 3/ comprehensive baseline data => which phase is it supposed to cover ? (Design + Procurement + Construction + Commissioning)?			x	The operating organization has the ultimate responsibility for the safety of the facility which includes all phases
276 ENISS	NUSSC WASSC	§8.6	Please replace 'oversight' by 'supervision'.	The rationale behind the use of "oversight" and "supervision" does not appear clearly in the document			x	Oversight is the more general term, how the operating organization conduct their oversight can be by direct supervision or by sampling activities. So, in this context oversight is the preferred term.

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277 ENISS	NUSSC WASSC	§8.7	"[…] to ensure that they fullfil their functions correctly ~~have been correctly installed~~ […]"	Why a specific focus on 'passive' safety systems? The Commissioning Programme verifies exhaustively the correct operation of all Safety Functions without distinction. Some wording to update: the Commissioning Programme verifies the correct operation of functions, and it indirectly verifies that the upstream installation was done correctly. Commissioning cannot test components or systems that have not been previously correctly installed/ erected. Otherwise, it can be added that the Commissioning verifies also the correct upstream procurement of components, the correct specification and design of the systems…			x	Not clear what it is you want to change in the document. The wording has changed to "Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety functions."

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278 ENISS	NUSSC WASSC	§8.7	Please delete or correct the sentence so that it does not lead to think that the Commissioning Organisation 'impair the safety functions', which is of course wrong.	The last part of the sentence can imply that the commissioning activities can 'impair some safety functions', which is of course not the case, since they are prepared and performed complying with all the highest applicable safety standards to prevent this (including detailed 'Risk Analysis'). The Commissioning Activities intrinsically demonstrate the correct operation of Safety Functions, including those ensured by passive Safety Systems, because the success of the Commissioning tests (test results are conform) guarantee that the systems are not impaired.	x	Not clear what needs to be changed. But the wording for 8.7 has changed, see above.		
279 ENISS	NUSSC WASSC	§8.9	"the operating, maintenance and ~~testing~~ periodic test procedures"	Proposal to add periodic for disambiguation between the 'commissioning tests' performed before the plant is officially in operation, and the 'periodic tests' during its whole life.	x			

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280 ENISS	NUSSC WASSC	§8.9	Please correct the ambiguity of "verification and validation of procedures". The Commissioning Organisation is in charge only of the 'Commissioning Procedures'. The 'Operating Procedures ('Normal' or 'Fault'), the Periodic Test Procedures and the Maintenance Procedures shall be under the responsibility of their dedicated organisations.	This sentence 'verification and validation of procedures' is ambiguous, because the Commissioning is not in charge of validating the 'Operating Procedures' ('Normal' or 'Fault'), the Maintenance Procedures, or the Periodic Test Procedures. Those shall be validated by the organisations in charge of applying them on site (i.e. operating organisation, maintenance organisation) during the Commissioning phase and taking advantage of the Commissioning tests. As such, for example, the Commissioning phases are the opportunity to perform the first Periodic Test to obtain the 'point zero' as a reference of component or system behaviour that will then be periodically tested during the			x	The sentence starts with the words "During commissioning …" the responsibility for verification and validation of operating procedures is clearly within the remit of the operations organization and likewise for maintenance procedures.

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				whole NPP operation phase.				
281 ENISS	NUSSC WASSC	§8.9	[…] before ~~fuel handling operations commence on site~~ on-site fuel delivery. […] Or […] before ~~fuel handling operations commence on site~~ first fuel loading. […]	Please clarify the meaning of 'before fuel handling operations commence on site'. The first main deadline should be 'before on-site fuel delivery' or 'storage'. And the second main deadline should be 'before first fuel loading'.	x	During commissioning, the operating, maintenance and periodic test procedures shall be verified to ensure their technical accuracy and shall be validated to ensure their usability with the installed equipment and control systems, before fuel handling operations commence on the site. The phrase " before fuel handling operations on the site' covers this.		
282 ENISS	NUSSC WASSC	§8.13	"(e.g. groups for design, procurement, construction, commissioning and operations, as well as contractors)".	In this list should appear all the 4 main steps of a new build project lifecycle before operation: 1/ Design; 2/ Procurement; 3/ Construction; 4/ Commissioning.	x			

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283 ENISS	NUSSC WASSC	§8.15	During construction and commissioning phases, the follow-up of evolutions and changes between the anticipated design parameters and the as built plant configuration shall be performed. A comprehensive process shall be established to address non-conformances, evolutions and changes in design, manufacture, construction and operation. Resolutions to correct changes and evolutions from the initial design and non-conformances shall be documented.	Proposal of rewording to introduce the principles of changes/ evolutions/ configurations, which are normal steps within so large and complex nuclear plant project, in particular for the 'first of a kind' of a series.			x	It is not clear what the difference is between evolution and a change in this context. A non-conformance covers any type of deviation.
283a ENISS	NUSSC WASSC	9.1	The decommissioning plan, including the specified end state, shall be updated in accordance with changes in regulatory re-quirements, modifications to the plant, ~~advances in technology~~ , changes in the need for decom-missioning activities ~~and~~ , changes in national policies or other relevant aspects arisen during the decommissioning (see GSR Part 6 [6]). The decommissioning plan, including the specified end state, shall be reviewed, and updated if needed, accounting for in ac-cordance with changes in regula-tory requirements, modifications to the plant, advances in tech-nology , changes in the need for decommissioning activities ~~and~~ , changes in national policies or other relevant aspects arisen during the decommissioning (see GSR Part 6 [6]).	The wording of requirement 34 with "specified end state" may give the im-pression the end state must be defined once forever and cannot be adapted in the course of the decommissioning. Flexibility should be provided in defin-ing the end state as it could well be not so easy to define it, sometimes tens of years in advance, and according to data collected during the decommis-sioning course, it could even be neces-sary to adapt the defined end state.			x	The decommissioning plan includes the end state so it is not necessary to define it here. GSR Part 6 contains further details regarding the decommissioning process. For this standard we are concerned with the preparation for decommissioning and not the decommissioning process itself.

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				The need to update the decommission-ing plans to advances in technology depends on the owner decision to use newer dismantling techniques or not. In addition, they are not necessarily as proven as former ones applied for many years in the field. Hence any advance in technology should not im-pose an update in the decommissioning plan. Some changes, advances in technology may necessitate an update to the de-commissioning plan, while others may not. The plan should be reviewed and reassessed in light of modifications, developments, or technological ad-vancements. However, such reviews should not automatically result in up-dates. For instance, certain advances in technology may not be				

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				deemed appro-priate, depending on the owner's deci-sion to use newer dismantling tech-niques. Moreover, these newer tech-niques may not be as proven as those that have been successfully applied in the field over many years. Therefore, any advance in technology should not, by itself, impose an update to the de-commissioning plan.				
284 Germany	CSS NUSSC	2.9	The management system for a nuclear power plant, shall include: ….. e) Review processes, including monitoring and assessment of the performance of the operating organization. The purpose of monitoring shall be: to verify compliance with the objectives for safe operation of the plant; to reveal deviations, deficiencies including human and organizational fac tors and equipment failures; and to provide information for the purpose of taking timely corrective actions and making improvements. This ……	As this para is dealing with monitoring and assessment of the performance of the organization, does this issue include Human- and Organizational Factors? We suggest to add them to the list. If not – a dedicated explanation should be included, perhaps in the form of footnote.	x			
285 Germany	CSS NUSSC	2.9	The management system for a nuclear power plant, shall include: ….. f) Processes for maintaining a formally designated design authority (see para. 2.15 ~~3.15~~) that has overall	To f) Please check the reference To g) new issue, following from para. 2.11	x			

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			responsibility for the continuing integrity of the … … g) detailing of the interrelated elements for establishing policies and objectives and the means to enable the objectives to be achieved which flow from the governance model					
286 Germany	CSS NUSSC	2.10	The operating organization shall establish liaison with the regulatory body and with relevant authorities to ensure a common understanding of, and to ensure compliance with, safety requirements and their interface with other requirements, such as those for security, protection of health or protection of the environment.	It is unclear why these have been omitted in comparison to the old Rev.1, in any case there might be additional/ other authorities in this regard the operating organization needs to and shall establish a liaison with.	x			
287 Germany	CSS NUSSC	2.11	A governance model, by which the operating organization of the nuclear power plant — and if appropriate, the corporate organization — is monitored, controlled and directed, shall be established. *The interrelated elements for establishing policies and objectives and the means to enable the objectives to be achieved which flow from the governance model, shall be detailed within the integrated management system.*	Please add this issue to Requirement 2 on Management Systems. We made a suggestion for para. 2.9 (g), please verify.	x			
288 Germany	CSS NUSSC	2.12	Safety committees for the operating organization and, where applicable, for the corporate organization, shall be established. The objectives, responsibilities, authority and reporting lines of the safety committee(s) shall be specified and documented. The involvement of	To our mind „documented“ does not necessarily include a specification, we propose to state it more clearly.	x			

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			experts from outside the operating organization shall also be considered.					
289 Germany	CSS NUSSC	2.16	The operating organization shall ensure that strategies, policies, objectives and processes for procurement and supply chain management are developed and implemented. These shall include: … (b) Activities for the monitoring, evaluation, verification *and, if applicable, reporting* of suppliers' performance.	It is not clear why reporting, and who to report to. (Nuclear) Suppliers are not necessarily licensed by a or the nuclear regulatory authority. Joint Owners Groups or similar industrial associations might have utilize such reporting, but not as a safety requirement. Thus it is proposed to either delete „reporting" or add „if applicable".	x			
290 Germany	CSS NUSSC	2.20	Shift teams shall be staffed to ensure that sufficient authorized operating personnel are present to operate the plant in accordance with the operational limits and conditions (see Requirement ~~6~~9). ~~Where the design involves multiple units or sites operated by one main control room with remote monitoring and intervention capabilities, an assessment of the staffing needs shall be made to ensure that all units can be~~	1) We guess Requirement 9 is meant here. Please verify. 2) We do not agree with addition of this issue to Requirement 4 "Staffing of the operating organization", as it is dealing not with	x	The staffing needs for multiple units should be considered under Requirement 4 which specifically deals with this topic.		

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			~~operated under all conditions in accordance with the operational limits and conditions.~~ The shift staffing patterns, shift cycles and controls on working hours shall provide sufficient time for the training of shift personnel.	staffing, but with regulation of several blocks (or SMR units) by a central control room. We suggest to remove current issue to Requirement 9 "Operational limits and conditions".				
291 Germany	CSS NUSSC	2.23	~~A knowledge management process shall be established to identify, maintain and share knowledge, skills and information as a fundamental means of achieving the objectives and goals of the operating organization and organizational and individual competences. This process shall:~~ ……	Comparing this para to para 2.15 it should be considered to be moved to Requirement 3 as it is a fundamental means of ACHIEVING THE OBJECTIVES and GOALS, i.e. function of an operating organization It serves the same role as the „design authority", but related to human resources.			x	As Requirement 4 deals with having competent managers and sufficient qualified personnel for the safe operation of the nuclear power plant. Knowledge management is an important process in the achievement of Requirement 4
292 Germany	CSS NUSSC	2.24	~~A process for the qualification, selection and evaluation of contractors shall be implemented by the operating organization, be documented in the management system and be communicated to relevant parties. The process shall include:~~ ……	Comparing this para to para 2.16 it should be considered to be moved to Requirement 3 as contractors/services are part of the supply chain			x	Same reason as above

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293 Germany	CSS NUSSC	2.28	The safety policy of the operating organization shall include a commitment to perform periodic safety reviews of the nuclear power plant throughout its operating lifetime in compliance with regulatory requirements (see Requirement ~~12~~11). Operating experience and significant new safety related information from relevant sources, including information on agreed corrective actions and on necessary improvements that have been implemented, shall be taken into account (see Requirement 7).	This is probably supposed to refer to Requirement 11: Monitoring and Review of Safety Performance, please check. It should be considered make a reference to Requirement 7: Feedback of Operating Experience in this case too.	x	Requirement 24		
294 Germany	CSS NUSSC	2.33	The operating experience programme shall be used to report, collect, screen, analyse, trend, document ~~identify, evaluate, record~~ and communicate operating experience at the plant in a systematic way. As part of this programme, the operating organization shall obtain and evaluate relevant operating experience from other nuclear installations to incorporate lessons for its own operations, including its emergency arrangements. The operating organization shall ……	We suggest to use the same elements, as they are used in SSG-50 para 2.4.	x			
295 Germany	CSS NUSSC	2.34	The operating organization shall apply a level of investigation and analysis technique commensurate to the actual or potential safety significance of events. The ~~use an~~ analysis technique shall ~~that~~ consider the actual or potential consequences	We suggest to put in line SSG-50 paras 2.41 and 2.42	x			

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
			~~significance~~ of events. The analysis shall be performed by suitably qualified and trained personnel. Events with safety implications shall be investigated to identify their direct and root causes, including causes relating to equipment design, operations, maintenance, human performance and organizational factors. Events with significant implications for safety shall be analysed by persons with sufficient independence from the line management to identify and address organizational issues objectively. The results of such analyses shall be used by the operating organization to implement corrective measures to prevent event reoccurrence. The outcomes of the analyses shall be included, as appropriate, in the relevant plant programmes (training, equipment, operations, maintenance, human performance and organizational programmes) and associated documentation (procedures, instructions, guidelines) ~~(training, equipment, operations, maintenance, human performance and organizational programmes)~~. Plant event reports and reports of non-radiation-related accident shall be used by the operating organization to identify tasks for which training might be inadequate.					

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296 Germany	CSS NUSSC	2.37	The operating organization shall ensure that analyses of events result in ~~produce~~ recommendations for corrective actions, which address and are directly linked to the identified root causes and contributing causes. These recommendations shall be validated by senior management and developed for the responsible managers, who shall implement ~~take~~ the corrective actions in a timely manner to avoid any recurrence of the events. Corrective actions, including ……	Please add that corrective actions address and are directly linked to the identified root causes and contributing causes.	x			
297 Germany	CSS NUSSC	3.7	The training programmes shall be assessed and improved by means of periodic reviews in accordance with a systematic approach to training. In addition, improvements shall be made by the timely update of the training programmes, facilities, computer models, simulators and materials (see para. 4.28) to ensure that they adequately reflect current plant conditions and operating policy, and that any differences are justified.	Please doublecheck the reference, as there is no para 4.28 in the current version	x			
298 Germany	CSS NUSSC	3.15	The operational limits and conditions shall be established taking into account appropriate margins commensurate with the risks and uncertainties associated with novel or innovative technologies ~~with equipment for which limited operating experience exists~~, and with equipment for which limited operating experience exists ~~with novel or innovative technologies~~. For first of a kind systems, a conservative approach shall be used and then shall	Clarification: by changing the order it is easier to read and understand.	x			

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			be reviewed and, as necessary, adjusted after operating experience has been accumulated.					
299 Germany	CSS NUSSC	3.21 A New issue	Where the design involves multiple units or sites operated by one main control room with remote monitoring and intervention capabilities, an assessment of the staffing needs shall be made to ensure that all units can be operated under all conditions in accordance with the operational limits and conditions.	We suggest to create a new issue here, instead of in para.			x	Can go in either location but prefer to keep it where it is for now.
300 Germany	CSS NUSSC	After para 3.34	REQUIREMENT 11: MONITORING AND REVIEW OF SAFETY PERFORMANCE The operating organization shall establish a system for continuous monitoring and periodic review of the safety of the nuclear power plant and of the performance of the operating organization.	We would like to suggest to return to the wording “continuous monitoring”, as used in the previous version of the current document. The idea is that monitoring shall be continuous, and review – periodic, this must be underlined. Alternative – give an appropriate definition of “monitoring” in IAEA Glossary,	x			
301 Germany	CSS NUSSC	3.35	An adequate *programme of audits and reviews* shall be established by the operating organization to ensure that the safety policy of the operating organization is being implemented and applied effectively. The findings from these audits and reviews,	Assessment of internal operating experience (own events) is not an „audit or review“. Nevertheless, it is correctly identified as	x			

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			~~together with~~ as well as internal and external operating experience ~~from the nuclear industry~~, shall be used by the operating organization to improve safety performance.	another indicator of safety performance. External operating experience on the other hand is broader than just nuclear industry, thus it is suggested to explicitly state **internal** and external operating experience.				
302 Germany	CSS NUSSC	3.41	The effectiveness of the self-identification of issues by the operating organization through safety performance monitoring shall be periodically evaluated and corrective actions shall be taken by the operating organization, as appropriate.	Please put in line with Requirement 7, para 2.40 and consider adding either „periodically“ or a term such as „frequent“, „regularly“, „systematic“ etc.	x			
303 Germany	CSS NUSSC	3.44	Operating procedures and supporting documentation shall be issued under controlled conditions and shall be subject to approval by suitably qualified persons and periodically reviewed and revised as necessary to ensure their adequacy and effectiveness. Procedures shall be updated in a timely manner in the light of operating experience and the actual plant configuration. Operating procedures shall be categorized on the basis of the safety significance of the operations they govern, i.e. procedures for „normal operation, anticipated operational occurrences or design basis accidents.	An explanation on how exactly procedures are to be categorized or what does categorization mean in this case would be helpful.			x	Plants use different methods so don’t want to be prescriptive in this document but further information could be included in SSG

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			3.44. Operating procedures and supporting documentation shall be issued under controlled conditions and shall be subject to approval by suitably qualified persons and periodically reviewed and revised as necessary to ensure their adequacy and effectiveness. Procedures shall be updated in a timely manner in the light of operating experience and the actual plant configuration. Operating procedures shall be categorized on the basis of the safety significance of the operations they govern.					
304 Germany	CSS NUSSC	4.5	Data on maintenance, testing, surveillance and inspection shall be recorded, stored and analysed for the purpose of confirming that the operating performance is in accordance with the design intent and with requirements for the reliability and availability of equipment. This shall be supposed to trace the floating of data deviations to identify early an unwanted development and implement countermeasures.	Please add analysis of trends.			x	Proposed wording is not clear and analysis would include trending
305 Germany	CSS NUSSC	After 5.16 New issue 5.16A	It shall be avoided to implement modifications on all safety relevant redundancies in the same outage.	Please add this important issue			x	Covered by 5.6

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306 Germany	CSS NUSSC	5.27	The operating procedures for reactor startup, power operation, load following operation, stretch-out operation, shutdown and refuelling shall include the precautions and limitations necessary to maintain fuel integrity and to comply with the operational limits and conditions throughout the lifetime of the fuel.	Please add to complete the list of procedures.			x	Not all plants load follow so list just includes main types of procedures.
307 Germany	CSS NUSSC	After 5.29 New issue 5.29A	The operating organization shall develop specifications and procedures of defect fuel for the unloading, verification, control, proper storage on the site and preparation for transport from the site.	Please add this important issue			x	Covered in 5.7
308 Germany	CSS NUSSC	5.34	Safety reviews such as periodic safety reviews or safety assessments under alternative arrangements shall be performed throughout the lifetime of the plant, at regular intervals and as frequently as necessary (typically no less than once in ten years). If possible, plant specific data shall be used for performing the reviews. If a new	Please add.			x	Addition more appropriate for SSG-25
309 Germany	CSS NUSSC	5.42	The scope and details of the equipment qualification programme shall be documented by the operating organization and submitted to the regulatory body for review and approval. Relevant national and international experience shall be taken into account ~~in accordance with regulatory requirements~~. Additional equipment ……	We think that regulatory requirements do not guide which operation experience is to be taken into account. Please verify.	x	If required has been added.		

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310 Germany	CSS NUSSC	5.50	The justification for long term operation shall be prepared on the basis of the results of a safety assessment, with due consideration of the ageing of structures, systems and components, to ensure the safety of the plant throughout its extended operating lifetime. The justification for long term operation shall be submitted to the regulatory body~~,~~ for approval~~, as required~~.	Please add that justification for long term operation shall be approved by the regulatory body.	x			
311 Germany	CSS NUSSC	5.52 New issue after i)	i-1) Assessment of new insights gained by national and international operational experience on hazard management measures;	Operational experience should also be taken into account for hazard management.	x			
312 Germany	CSS NUSSC	7.77	7.77 a) The emergency plan shall be tested and validated in exercises before the commencement of the first fuel loading. 7.77 b) Emergency preparedness training, exercises and drills shall be planned and conducted at suitable intervals, to evaluate the preparedness of personnel to perform their tasks, and to evaluate their cooperation in implementing the emergency plan and in improving the efficiency of the response.	For a better understanding/ overview we suggest to divide this into two parts. Please add that the emergency plan shall be tested and validated before the first fuel loading. l be tested and validated before the first fuel loading.	x	Already included		

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313 Germany	CSS NUSSC	9.4	In the preparatory period for decommissioning, a high level of ~~operational~~ safety shall be maintained until the nuclear fuel has been removed from the plant.	Clarification, as NPP is not in operation during decommissioning.			x	Operational safety is the term used until such time as the fuel is removed.
314 Russia	NSGC	2.32	Change the first sentence to: "The operating organization shall be responsible for ensuring close cooperation between safety managers and security managers, with the objective of minimizing risks…".	The version present in the text refers to security requirements, which are out of scope of safety. The proposed version retains the general need for cooperation, but leaves out security requirements.			x	Interfaces between security and safety were included within the scope of this document and requirement 6 was included in the previous revision.
315 Russia	NSGC	7.13	Change paragraph to: "The emergency plan for the nuclear power plant shall be coordinated with the nuclear security contingency plan to ensure effectiveness and compatibility. The measures taken within the emergency plan and nuclear security contingency plan should not adversely affect each other and should be mutually supportive".	The current version is phrased as requirement for nuclear security, which is out of scope of this document.			x	See above comment

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316 Egypt	NSGC	2.32 (Requirement 6)	Add a footnote referencing specific Nuclear Security Series documents (e.g., NSS No. 13, NSS No. 20) for better alignment between safety and security programs.	This will ensure clarity and consistency when integrating safety and security measures and provide users with authoritative references on managing the interface.			x	Want to avoid this being a signpost document.
317 Egypt	NSGC	2.10	Add: “These interfaces shall be documented and reviewed regularly to reflect changes in plant operations, threat environment, or organizational responsibilities.”	Documenting safety–security interfaces supports traceability, regulatory compliance, and ensures timely updates in response to operational or threat changes.			x	Outside the scope of this document
318 Egypt	NSGC	3.65 (Records and Reports)	Include: “Information security controls shall be implemented to protect sensitive data related to security systems, response protocols, and access control configurations.”	Safety documentation often includes sensitive security-related information. Without appropriate protection, this poses a potential vulnerability.			x	Outside the scope of this document
319 Egypt	NSGC	4.11 (Maintenance Coordination)	Revise to include: “Coordination shall also include the security team when activities involve systems important to physical protection (e.g.,surveillance, intrusion detection).”	Security systems (e.g., CCTV, barriers) can be compromised during outages or maintenance. Coordination is critical to ensure continuous protection.			x	Outside the scope of this document

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320 Egypt	NSGC	5.14 (Modification Planning)	Add a new clause: "Any plant modification that affects physical protection systems shall be assessed for its impact on the nuclear security system and coordinated with the relevant security authority."	Modifications may unintentionally compromise security (e.g., by introducing new access points). A structured review prevents this.			x	Outside the scope of this document
321 Egypt	NSGC	7.6 (Emergency Preparedness – implied under Req. 31)	Add: "Emergency response plans shall include procedures to maintain the security of vital areas, nuclear material, and sensitive information during an emergency."	During emergencies, responders might override access controls or share sensitive data. Maintaining nuclear security remains essential even during crises.			x	Included in 7.12 & 7.13
322 UK	NUSSC	General Comment	The document talk about individual qualification etc – should reference be made to experience also e.g 8.2 ….., are qualified **and experienced** **Or make clear that qualification includes experience**	Experience is as important as qualification 3.9 & 7.18 do refer to experience			x	Agree but experience is difficult to quantify. You can be trained but experience comes with time and circumstances. So I think it is implied but to specify it in this safety standard would raise a lot of further questions.

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323 UK	NUSSC	General comment	Construction seems to be part of commissioning but not in title – should this be amended or separate section added? Construction and link to plant configuration and equipment qualification is weak	To show a clear line of responsibility and accountability for safety over the whole organization. Should there be reference to CFSI There needs to be a stronger link established between commissioning & plant configuration & equipment qualification	x	Reference to construction has been removed from the document as it is out of scope. Additional sentence added: "The operating organization shall ensure that plant configuration at handover is prescribed for the required operating state at that time and is verified and maintained in accordance with the safety analysis prior to final acceptance."		
324 UK	NUSSC	8.3	For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide a commissioning programme to enable representatives from the operating organization, **and if required the regulatory body**, to witness commissioning tests at the factory and at the site	To be consistent with 8.2 requirements	x			
325 UK	NUSSC	7.3	7.3. Appropriate arrangements for emergency preparedness and response shall be established **as the site is established and evolve** as nuclear fuel is first brought to the site, and the emergency plan and all emergency arrangements shall be in place before the commencement of fuel loading.	Current wording applies nothing is required prior to nuclear material			x	The scope of this document is concerned with nuclear safety, so emergency arrangements prior to fuel loading would fall under

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								construction regulations.
326 UK	NUSSC	5.34	5.34. Safety reviews such as periodic safety reviews or safety assessments under alternative arrangements shall be performed throughout the lifetime of the plant, at regular intervals and as frequently as necessary (typically no less than once in ten years). If a new reactor module is added, the frequency of periodic safety review of the nuclear power plant shall be consistent with the date at which the first module was installed.	Should the review be from the date of design freeze? What does installation mean given some facilities construction time >10yrs			x	Wording is clear
327 UK	NUSSC	5.5	5.5. A modification programme shall be established and implemented to ensure that all modifications to the nuclear power plant are properly identified, specified, designed, evaluated, authorized by the operating organization for implementation, implemented and recorded. The modification programme shall cover: structures, systems and components; operational limits and conditions; procedures; **management system arrangements**; documents; **resources**; and the structure of the operating organization.	The management system arrangements would cover the QA, maintenance policies, IV and peer review requirements etc. i.e organizational barriers	x			

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328 UK	NUSSC		3.17. The operational limits and conditions shall include: ……. **Organisational Requirements (e.g. minimum manning)**		x			
329 UK	NUSSC	Req. 12	Should reference be made to Human performance evaluation (ie Human Factors). Use of hold points, signatures and also peer review, IV and supervisor sign-off commensurate with safety importance etc.				x	Further details can be found in SSG-70, 3.45 contains the general requirement that they should be categorized according to their safety significance.
330 UK	NUSSC	Req.18	Should reference be made to **documents** also	Documents are distinct to records and reports but also important. Requirements for version control and archives required			x	Records is the generic term for all types of documents
331 UK	NUSSC	Para 2.19, Add after "The recruitment and selection policy of the operating organization shall be directed at	"Roles, responsibilities, accountabilities and performance standards for safety at all levels shall be clear and avoid conflict with other business roles, responsibilities, accountabilities and objectives"	Roles and Responsibilities and their impact on safety at all levels should be clear and conflicts between roles should be avoided.	x			

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		retaining competent person nel to cover all aspects of safe operation."						
332 UK	NUSSC	Para 2.30	These expectations shall include, and not limited to:	The list is not comprehensive.			x	The phrase "shall include…" covers this.
333 UK	NUSSC	Para 2.30(d)	Demonstration of leadership skills via a visible commitment to safety through senior leadership activities	Text added for additional clarity. Senior leadership should lead by example and learnings should be recorded and communicated.			x	Additional wording unnecessary as the demonstration of leadership skills can cover many aspects.
334 UK	NUSSC	Para 3.44 Added text after "configuratio n"	Procedures shall be updated in a timely manner in the light of operating experience and the actual plant configuration. "The operating organization shall ensure that changes are communicated effectively to the affected staff and provide adequate training reflecting the changes"	Added text for clarity, as often procedural changes are not adequately communicated/cascad ed to the relevant staff	x	Procedures shall be updated in a timely manner in the light of operating experience and the actual plant configuration and any changes effectively communicated to the affected staff with supporting training if necessary		

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335 UK	NUSSC	Para 3.52, Add text after "Systems and component."	"Programmes for monitoring, inspection, sampling, surveillance and testing, to detect and monitor ageing and degradation processes, should be used to verify assumptions and assess whether the margins will be adequate for the remaining life of the structure, system or component"	In case of novel materials, assumptions are made and therefore the need arises to verify such assumptions with surveillances and ensure the adequacy of margins.			x	Covered in Requirement 26
336 UK	NUSSC	Add text After Para 4.2	"Structures, systems and components shall be type-tested before they are installed to conditions equal to, at least, the most onerous for which they are designed"	Especially regarding novel designs, this requirement is in order to demonstrate that such SSCs do not have any inherent design faults that could adversely affect their performance, life or reliability. Also it helps testing manufacturer's production processes and tests the stability of equipment subject to various influence factors. This should be consistent with Para 4.4 "The maintenance, testing, surveillance and inspection of structures, systems and components expected to operate in conditions for which no operating experience is available			x	Already covered in 4.4

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				shall be determined to prevent unplanned failures and ensure that the safety functions of the structures, systems and components continue to be fulfilled."				
337 UK	NUSSC	Add text before current para 5.2	"No means shall be provided, or be readily available, by which the configuration of a safety system, its operational logic or the associated data (trip levels etc) can be altered, other than by specifically engineered and adequately secured maintenance/testing provisions used under strict administrative control."	This requirement should be present in order to avoid alteration (voluntary or involuntary) of configuration, operational logic or associated data of safety systems.			x	Covered in 5.1 with the phrase"….proper controls…"
338 UK	NUSSC	Para 5.17, Add text	Provision shall be made to ensure that only fuel that has been appropriately manufactured is loaded into the core. Fuel assemblies should be designed to permit suitable and sufficient inspection of their structure and components before loading into the core. Provision should be made for in-service monitoring and post-irradiation inspection to confirm fuel behaviour and performance.	Making more explicit Fuel Inspection requirements			x	This is more of a fuel design consideration.
339 UK	NUSSC	Before Para 5.19 Add text	The design shall allow fuel to be removed from the reactor, despite any in-service damage such as bowing, swelling or from other damage occurring in normal operation and design basis fault conditions.	Retrievability requirements made more explicit			x	Same comment as above

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340 UK	NUSSC	Para 5.25 Add text after full stop at the end of the paragraph.	"Core parameters shall be monitored in all operational and design basis fault conditions and appropriate recovery actions taken in the event of adverse conditions being detected"	It's important to specify the operating conditions and to take recovery actions when adverse condition present themselves.	x			
341 UK	NUSSC	Para 5.45	The scope and details of the equipment qualification programme shall be documented by the operating organization and submitted to the regulatory body for review and approval, as required.	Added text as not always review and approval is required.	x			
342 UK	NUSSC	Add text After Para 7.23	"Effective storage arrangements should be in place to ensure the timely availability of plans and procedures in accident conditions"	This is important as procedures and plans needs to be accessible in many different type of situations and locations			x	Not necessary to specify how it is done the requirement in 7.23 is clear that actions must be feasible for adverse conditions. Details can be found in SSG-54
343 ROK	NUSSC	7.1	The operating organization shall develop its emergency plan in accordance with a ~~risk assessment~~ hazard assessment that considers site specific conditions. The events that shall be considered include those that lead to a nuclear or radiological emergency and events involving a combination of a nuclear or	Suggestion to replace "risk assessment" with "hazard assessment" aligning with the terminology used in GSR Part 7 paras. 4.7 and 4.9.	x			

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			radiological emergency with a non-radiological emergency.					
344 ROK	NUSSC	7.2	Emergency planning for the nuclear power plant shall also consider non-radiological events such as fire, explosions, and spills of chemicals, and events that could have an impact on the availability of plant personnel such as outbreaks or pandemics (see para. 5.45). Events of very low probability shall be considered in the ~~risk assessment~~ hazard assessment. Requirements for emergency preparedness and response are established in IAEA Safety Standards Series No. GSR Part 7, Preparedness and Response for a Nuclear or Radiological Emergency, [7].	Suggestion to replace "risk assessment" with "hazard assessment" aligning with the terminology used in GSR Part 7 para. 4.7 and 4.9.	x			
345 ROK	NUSSC	7.3	Appropriate arrangements for emergency preparedness and response shall be established from the time that nuclear fuel is first brought to the site. ~~, and the emergency plan and all emergency arrangements~~ These arrangements including emergency plan shall be in place, verified, tested and validated, including by the regulatory body as appropriate, before the commencement of fuel loading.	Suggest to consolidate with para 7.7. Regulatory verification should be explicitly required to ensure adequacy of arrangements for emergency preparedness and response of operating organizations. It also needs to be tested and validated by regulatory body as			x	Prefer to keep them separated.

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				per proposed draft para 7.7.				
346 ROK	NUSSC	7.4. – 7.16.	(General Comment) Consider reducing the number of paragraphs to avoid unnecessary repetitions to GSR Part 7, as these requirements are provided in GSR Part 7 as indicated in para 7.2.	It is recommended to include a general statement that paras 7.4–7.16 should be reviewed for consistency with GSR Part 7, and unnecessary repetition should be avoided. Consider retaining only DS 532-specific interfaces and responsibilities, There should be clear justification for repeating some of requirements from GSR Part 7.			x	We wanted to avoid this document being a signpost document and simply referring to other safety standards. Paragraphs 7.1 -7.16 contain the main features of the emergency preparedness and response plan which align with the requirements of GSR Part 7.
347 ROK	NUSSC	7.5.	The operating organization shall prepare the emergency plan in coordination with ~~those organizations~~ offsite authorities that have responsibilities in an emergency, including ~~public authorities~~ government, regional and local authorities and private enterprises, as	Suggestion to replace "those authorities" and "public authorities" with "offsite authorities" and "government, regional and local authorities"	x	The operating organization shall prepare the emergency plan in coordination with those organizations that have responsibilities in an emergency, including		

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			relevant, and the plan shall be submitted to the regulatory body as required. The plan shall be subject to review and update in the light of experience gained.	to clarify each "authorities" and entities involved.		government, regional and local authorities and private enterprises, as relevant, and the plan shall be submitted to the regulatory body as required.		
348 ROK	NUSSC	7.6.	The operating organization shall ensure that an adequate number of suitably qualified personnel are available to manage an emergency response at all facilities that might be simultaneously subject to emergency conditions. A training programme for emergencies shall be established and implemented to ensure that plant personnel and, as appropriate, personnel from other ~~participating organizations~~ external organizations involved in emergency response possess the knowledge, skills and attitudes necessary for the implementation of the emergency plan under stressful conditions.	Suggestion to replace "participating organizations" with "external organizations involved in emergency response" to clarify the meaning of "participating" .			x	Participating organization is clear.
349 ROK	NUSSC	7.7.	Consolidate the para with para 7.3.	It is recommended to consolidate para 7.3 and 7.7 as proposed new text.	x			
350 ROK	NUSSC	7.8.	Consolidate the para with para 7.2.	This para is repetition to para 7.2.			x	The paragraphs describe different aspects of

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								emergency preparedness.
351 Germany	NUSSC	5.31	The **transport, including** packaging~~,~~ **and** carriage**,** ~~and transport~~ of unirradiated and irradiated fuel shall be performed in accordance with IAEA Safety Standards Series No. SSR-6 (Rev. 1), Regulations for the Safe Transport of Radioactive Material, 2018 Edition [10].	According to the IAEA Nuclear Safety and Security Glossary, the term "transport" in the context of the Transport Regulations includes the processes of "packaging" (preparation) and "carriage". The proposed rewording aims to prevent a misinterpretation of the term "transport".	x			
352 Germany	NUSSC	9.2	Particular attention shall be given to planning the decommissioning of nuclear power plants with integrated reactor designs, transportable nuclear power plants, and plants that are designed for one-time fuelling. The decommissioning plans for such plants shall include provisions for the removal of equipment **and for the shipment in accordance with the requirements of the Transport Regulations** to enable off-site decommissioning.	If off-site decommissioning is planned, the transport of such plants which are activated, contaminated or contain irradiated fuel shall be considered in the decommissioning plans. In order to demonstrate that decommissioning can be carried out safely, these transport plans shall be in accordance with the requirements of the Transport Regulations.	x			

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353 Iran	EPReSC	7.2/ Second line	"Emergency planning for the nuclear power plant shall also consider non-radiological events or hazards such as fire, explosions,…"	Paragraph 4.24 of GSR Part 7 states: "4.24. The government shall ensure that the hazard assessment also identifies non-radiation-related hazards to people on the site and off the site that are associated with the facility or activity and that may impair the effectiveness of the response actions to be taken." So it is suggested adding "hazards".	x			
354 France	NUSSC	2.10	The operating organization shall establish liaison with the regulatory body and with relevant authorities to ensure a common understanding of, and to ensure compliance with, safety requirements and their interface with other requirements, such as those for security, radiological protection, normal operation releases. Or The operating organization shall establish liaison with the regulatory body and with relevant authorities to ensure a common understanding of, and to ensure compliance with, safety requirements and their interface with	Mentioning only security does not enhance the need of integrated approach.	x	The operating organization shall establish liaison with the regulatory body and with relevant authorities to ensure a common understanding of, and to ensure compliance with, safety requirements and their interface with other requirements, such as those for security, protection of health or protection of the environment.		

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			other requirements~~, such as those for security~~.					
355 France	NUSSC	2.15	A designated 'design authority' shall be established to ensure that the overall integrity of the nuclear power plant design is maintained at all stages of the plant lifetime. The objectives, roles, responsibilities and lines of communication of the design authority shall be established, implemented and documented for the following: (a) Changes to structures, systems and components; … (g) Transition from operation to decommissioning; (h) Operating experience feedback.	Operating experience feedback is an important topic to ensure efficiency of design authority.			x	This is already covered in (a), (b), (c), (f)
356 France	NUSSC	Requirement 5	The operating organization of the nuclear power plant shall establish and implement operational policies that give safety the highest priority, ~~overriding~~ compared to the demands of production and project schedules.	The initial formulation is a too straightforward view of the priority of safety and forget that there is an unavoidable influence of demands of production and project schedule that could also have a link with safety. Replacing "overriding" by "compared to" enhances the importance of adequate analysis.			x	Overriding is the better adjective.

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357 WNA	NUSSC	2.9f	Processes for maintaining a formally designated design authority (see para. ~~3~~2.15) that has overall responsibility for the continuing integrity of the plant design […]	2.15 seems to be the correct reference, not 3.15.	x			
358 WNA	NUSSC	2.17	Where a project management organization is used to manage major projects within the operating organization, the project management organization shall: ~~Give plant safety the highest priority, overriding the demands of production and project schedules;~~ Give, as an overriding priority, protection and safety issues the attention warranted by their significance.	Compare IAEA expectations for safety culture. The present wording "overriding the demands of production and project schedules" suggests an attitude that is not accepted by 21st century nuclear operators. See also Requirement 1.			x	The term used in the text if often referred to at NPPs.
359 WNA	NUSSC	5.2	If there are changes in plant configuration, the plant documentation shall be formally revised and issued at the same time the changes are made. If this is not possible, compensatory measures shall be taken to ensure that operational decision-making will be based on proper input information and a deadline shall be set for the revision and update of the plant documentation, commensurate with the safety significance of the structure, system or component.	"Compensatory measures" alone is unclear?			x	Don't think the added wording clarifies the compensatory measures. The reason for having compensatory measures is clear, to avoid errors which could lead to nuclear or conventional safety event.

COMMENTS The comments are listed according to their order of appearance in the text					RESOLUTION			
360 WNA	NUSSC	5.3	Particular attention shall be paid to the configuration of instrumentation and control ~~equipment~~ systems to ensure that the ~~documentation indicating the plant parameters is consistent with the configuration of the plant parameters actually present in the equipment~~ actual parameter settings in the installed equipment match with the approved documentation.	Topic is important but "plant parameters" may be misunderstood in a way that the concern is limited to physical parameters in the plant (e.g., thresholds for reactor trip regarding a certain plant parameter like pressure or temperature). In fact this concerns all changeable "parameters" (hardwired or software) defining the response of an I&C function.			x	Both versions of the text are saying the same thing.
361 WNA	NUSSC	8.10	Reviewed and approved arrangements for the control of commissioning and maintenance work, management of modifications and control of plant configuration to meet the conditions of the commissioning tests shall be established at the start of commissioning. In particular, it shall be traceable in which technical configuration a certain commissioning test has been performed in order to allow for later check if re-test is needed in view of subsequent technical changes.	The present "*control of plant configuration to meet the conditions of the commissioning tests*" is alone hard to understand?			x	The text is regarding ensuring that arrangements and controls are in place for commissioning documentation and processes such as work planning, changes to equipment, test documentation, plant configuration changes etc.

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								The proposed addition text doesn't provide any additional clarification.
362 WNA	NUSSC	8.11	The operating organization shall ensure that appropriate procedures are developed for the handover of the plant ~~at the end of commissioning~~ prior to the initial fuel loading. This shall include the transfer of responsibilities for structures, systems and components, items of equipment and documentation, and it may include the transfer of personnel.	Transfer of responsibility shall be completed prior nuclear commissioning.			x	Not all parts of the plant are necessarily handed over prior to initial fuel loading. Hence the term ….”at the end of commissioning …”.
363 WNA	NUSSC	8.13	*Proposal is to put the present paragraph 8.13 prior to present 8.11.*	Present 8.13 describes the general need to manage commissioning interfaces and the lines of communication between different groups. It would be more logical to have this requirement prior to the present 8.11 which focuses on one special and important interface (transfer from commissioning to operation).	x			

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364 WNA	NUSSC	8.15	During construction and commissioning, a comparison shall be performed between the as built plant and its design parameters. A comprehensive process shall be established to address non-conformances in design, manufacture, construction and operation. ~~Resolutions to correct differences from the initial design and non-conformances shall be documented.~~ Resolutions to either accept differences between initial design and as-built plant or to correct non-conformances shall be documented.	Deviations may be accepted based on proper justification.	x			
365 NNR SA	NUSSC	Last page, "CONTRIBUTORS TO DRAFTING AND REVIEW"	The list of names must appear in the correct alphabetical order, e.g. Morgan, S. should come before Nikolaki, M.		x			
366 Saudi Arabia	NUSSC	General	In the whole document operating organization have been stated in three different ways: 1. The operating organization of a nuclear power plant (e.g. requirement 1 and 2, paragraph 2.9) 2. The operating organization of the nuclear power plant (e.g. requirement 6 and 7 and onward) The operating organization (paragraphs 2.3, 2.6)	If this has been done purposefully then a footnote somewhere in the document may be added to clarify the difference among them otherwise a consist terminology may be adopted in the document.			x	I don't see the value in adding nuclear power plant after every reference to the operating organization, the subject of the sentence is clear.

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367 Saudi Arabia	NUSSC	2.2/1	For the purpose of clarification, it is proposed to introduce the following text at the beginning of the paragraph "Operating organization can be a company or utility that is authorized to operate one or more nuclear power plants. In case of more than one nuclear power plants under the operating organization, the senior management at the nuclear power plant shall……..."	In paragraph 2.2 a different term "senior management at the nuclear power plant" have been introduced under the umbrella of operating organization without any clarification. In case, when a site has only one NPP then operating organization and the management of NPP will be the same and that will make this paragraph irrelevant so with the qualifier at the beginning of the paragraph then intent of the proceeding text will be clear. This definition of Operating Organization is in line with paragraph 2.1, SSG-72.			x	The term operating organization is defined within the IAEA Glossary so it is not necessary to redefine it here. The SSG-72 has further details as you have pointed out.
368 Saudi Arabia	NUSSC	2.3/1	It proposed to introduce "The operating organization of a nuclear power plant……." in the first sentence.	In requirement 2, there is an addition of "the operating organization of a nuclear power plant" which is not being reflected in paragraph 2.3. Without clarifying it in paragraph 2.3. they may appear two different entities so better to reflect the same in paragraph 2.3. It would be better to	x			

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				use consistent approach throughout the document.				
369 Saudi Arabia	NUSSC	2.6/1	The ~~management system of the~~ operating organization shall ~~include provisions to~~ ensure long-term access to knowledge of the plant design and manufacturing and construction throughout the lifetime of the plant.	Access to knowledge can have two meanings. One is through maintenance of the records that will be transferred to the operating organization at the time of construction/ commissioning of the NPP. Second meaning could be by maintaining an active contact and collaboration with various design organizations and manufactures of vendor countries. In the second case, it will be the operating organization not the provision in Management System that will ensure a long-term access to prescribed knowledge through a formal contract and arrangement with design organization	x			

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				that have the required knowledge. By simply stating provisions in the Management System will not resolve this matter.				
370 Saudi Arabia	NUSSC	2.7/2	It is proposed to introduce the highlighted text in the paragraph: "The management system of the operating organization shall contain specific provisions for the procurement, supervision, use and maintenance of items, products or services that may influence safety including any commercial grade components and any first of a kind components and services that could affect the safety of the nuclear power plant."	The paragraph needs to cover the whole spectrum of items, that may influence safety with additional emphasis on commercial grade components. By excluding the overall prospect, the meaning of text will be quite different and misleading.	x			
371 Saudi Arabia	NUSSC	2.9 (g)	Following new bullet nay be added "Processes for managing safety and security interface to ensure that safety and security co-exist with each other and mutually enhance each other."	The reason for purposing the new bullet is to address the following aspects to be covered as part of Management System as highlighted in IAEA publications: Para. 4.10 of GSR Part 2 states that "Potential impacts of security measures on			x	This is covered in requirement 6

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				safety and potential impacts of safety measures on security shall be identified and shall be resolved without compromising safety or security". Similarly, IAEA Nuclear Security Series No. 7, Nuclear Security Culture, recognizes that: "Safety and security cultures coexist and need to reinforce each other because they share the common objective of limiting risk. There will be occasions where there are differences between safety and security requirements. Therefore, an organization in charge of nuclear matters has to foster an approach that integrates safety and security in a mutually supporting manner." It is to be noted that although				

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				paragraph 2.10 in existing Draft is covering the interface with other requirements, such as those of security but the importance of safety-security interface warrants to be addressed a sperate bullet under Paragraph 2.9.				
372 Saudi Arabia	NUSSC	2.12/1	It is proposed to add the highlighted text in the paragraph: Safety committee (s), providing an independent review of performance and activities that relate to the safe operation of the plant, for the corporate organization and, where applicable, for the corporate organization, shall be established.	It will be appropriate to briefly describe the purpose of the safety committee; there is possibility that without mentioning the specificity any committee can be declared as safety committee. This purpose is in line with A-12, Annex, IAEA SSG-72.	x			
373 Saudi Arabia	NUSSC	2.15/1	Following new text is being proposed at the beginning of the paragraph: "The operating shall have overall responsibility for maintenance of the design integrity of a plant."	During the original design, construction and commissioning phase of the plant the original designers of a plant meet the attributes of a design authority, and formal arrangements are to be made by the operating organization to either develop this authority within its organization or	x			

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				delegate it completely to designer until the operation phase. This introductory statement will ensure that Operating organization retain the prime responsibility for design integrity of the plant at all stages of the plant lifetime. Without introducing this statement the placement of the paragraph 2.15 in the existing draft will be questionable.				
374 Saudi Arabia	NUSSC	2.16/1	It is proposed that paragraph 2.7 which also deals with supply chain and commercial grade items may be moved to under REQUIREMENT 3, along and merged with paragraph 2.16.	Both paragraphs are dealing the same subject matter and as per DDP this aspect (procurement) needs to be covered under Requirement 3.	x			

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375 Saudi Arabia	NUSSC	2.24/1	It is proposed to add the following highlighted text in the paragraph: A process for the qualification, selection and evaluation of external support organizations including contractors shall be implemented by the operating organization, be documented in the management system and be communicated to relevant parties. The process shall include: (a) Specified acceptance criteria to be met; (b) Monitoring and performance evaluation of ~~contractors~~ external support organizations by the operating organization; (c) Communication of the results of the performance evaluation to the ~~contractors~~ external support organizations and the further monitoring of the effectiveness of any agreed contractor actions.	External support organizations fall the umbrella of contractor so it would be more appropriate to discuss their qualifications, selection and evaluation at one place. It is therefore proposed that with some modifications paragraphs 2.5 and 2.24 may be merged as both are dealing the same subject matters under Requirement 4 as per approved DPP.			x	The term contractors covers external support organizations.
376 Saudi Arabia	NUSSC	2.30/1	It is proposed to add the following highlighted text in the paragraph:	The additional text will make the statement consistent with Requirement 2,			x	Inclusion of the term managers might mislead

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			The safety policy of the operating organization shall include high level expectations from Managers for leadership for safety (see Requirement 2 of GSR Part 2).	GSR Part 2, as these expectations for leadership are from Managers.				as supervisors are also expected to demonstrate leadership skills.
377 Saudi Arabia	NUSSC	3.2/1	The following text may be added as a first sentence: The operating organization should formulate a training policy.	It will be more appropriate to 1st require to formulate a policy and then ask to align it with other polices. The addition of proposed text will make a logical sequence in the paragraph.			x	The existing wording is clear and refers to the need for a training policy to be in place.
378 Saudi Arabia	NUSSC	3.29	It will be better to delete the whole paragraph: ~~"The operating organization shall ensure that the competence requirements for staff and contractors who perform safety related activities are identified, documented and communicated and taken into account in training programmes."~~	This subject is already covered in much details in paragraphs 3.1 and 3.6 under requirement 8. i.e. Qualification and Training of Personnel.	x			
379 Saudi Arabia	NUSSC	3.37/5	It is proposed that coaching may be removed from the text. "The monitoring of plant conditions, activities and attitudes of personnel shall be supported by systematic ~~coaching and~~ observation	Coaching is not part of monitoring the plant and it may confuse the reader so better to remove it from the sentence.			x	Coaching is an important aspect of the monitoring of personnel attitudes if they are not in line

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			of personnel and walkdowns of the plant by managers at all levels.”					with expectations.
380 Saudi Arabia	NUSSC	3.56	It is proposed that paragraph may be split into two and retained as in existing SSR 2/2, Rev. 1. As follows: An exclusion programme for foreign objects shall be implemented and monitored, and suitable arrangements shall be made for locking, tagging or otherwise securing isolation points for systems or components to ensure safety. The operating organization shall be responsible for ensuring that the identification and labelling of plant equipment (items important to safety and items not important to safety) rooms, piping and instruments are accurate, legible, well maintained, and not degraded.	It is proposed to split the paragraph into two as they are dealing with different subject matters. First one, is dealing with foreign material management and second one is about identification and labelling of plant equipment.	x			
381 Saudi Arabia	NUSSC	3.58/2	It is proposed to use the term type of fire extinguishing agent instead of type of coolant/ The fire hazard analysis shall reflect the type of ~~coolant~~ fire	IAEA SSG-64, Protection against Internal Hazards in the Design of Nuclear Power Plants is using the term agent so it is proposed to use the	x			

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			extinguishing agent, combustible materials and possibility of interaction among multiple unit plants as applicable.	same terminology here as well.				
382 Saudi Arabia	NUSSC	3.64/1	It is proposed to add the following text in the paragraph: The effects of unforeseeable situations including epidemics and pandemics on the safe operation of a nuclear power plant shall be considered for their potential to impact the safe operation of the plant.	There could arise various situations in which there are difficulties for the outgoing shift team in leaving the site and/or difficulties for the incoming shift personnel arriving at the site because of severe weather conditions or some unrest situation surrounding the plant area, so it is proposed to keep the term open instead of focusing only on epidemic and pandemic. This addition is also in line with DPP proposal.	x	The continued safe operation of the nuclear power plant shall consider the effects of unexpected events such as epidemics, pandemics and natural disasters and their potential to impact safety.		
383 Saudi Arabia	NUSSC	3.65/2	It is proposed to add the following text in the paragraph: Records of site evaluation,; design,; construction and installation; commissioning and operation, including maintenance and surveillance activities, shall be kept available for each plant system	It is proposed to use the semicolon instead of comma to sperate site evaluation and design from operation and maintenance, otherwise each plant system will be applicable for site			x	Construction is out of scope of this document.

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			important to safety, including relevant off-site tests.	evaluation and design as well. Further, it is proposed to cover the construction and installation phase record as well as it is important to maintain it to identify any issue that were raised in construction and installation phase of NPP.				
384 Saudi Arabia	NUSSC	4.1/2	It is proposed to delete the predictive maintenance. "The maintenance, testing, surveillance and inspection programmes shall include ~~predictive~~, preventive and corrective maintenance activities, which shall be undertaken in accordance with a graded approach, based on the safety significance of the activities."	IAEA SSG-74, states that the preventive maintenance should include periodic, predictive and planned maintenance activities performed before the failure of an SSC. So, it is better to use preventive and corrective maintenance as the main categories defined in IAEA SSG-74. This is also in line with DDP which proposes to make this requirement consistent with SSG-74.	x			

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385 Saudi Arabia	NUSSC	5.38/a	The intent of the following statement is not clear: The review shall: (a) Identify any features that might limit the lifetime of the plant in order to plan future modifications;	Under requirement 24, Periodic Safety Review, intent of the statement is not clear. It is proposed to add some additional text to make it self-explanatory.			x	Sorry but the text is clear to me.
386 Saudi Arabia	NUSSC	5.44/4	It is proposed to add the following additional statement at the end of paragraph: The operating organization shall submit the assessment and proposed actions to regulatory body for approval.	In case of non-conformance of the equipment with qualification criteria, the approval of the regulatory body must be essential to ensure the appropriate use of this provision.			x	Covered in 5.42
387 Saudi Arabia	NUSSC	5.52	It is proposed to add the following text as bullet (a) "Provisions to establish and maintain an updated list of internal and external hazards	The first provision in the programme should be establishment and maintenance of a list of all type of hazards, this important element is missing in the paragraph.			x	Covered in (a) and (b)
388 Saudi Arabia	NUSSC	5.52	It is proposed to add the following new text: "A systematic approach shall be taken for the development, implementation and continuous improvement of the hazard management programme, including a periodic review of its effectiveness."	The draft is silent about the systematic approach for the development and review of the program and may be added.	x	Assessment of new insights gained by national and international operational experience on hazard management measures.		

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389 Saudi Arabia	NUSSC	6.7/5	It is proposed to move the following text from paragraph 6.7 to the end of paragraph 6.4: "For activities involving high or potentially high dose rates, the radiation protection programme shall include special training and procedures for site personnel, including those employed by contractors, to ensure that protection and safety are optimized. "	Paragraph 6.4 is regarding the training of personal in the area of radiation protection and radiological hazards and this part of paragraph 6.7 is address more explicitly in para 6.4.So it is proposed to move it from here.	x			
390 Saudi Arabia	NUSSC	7.1/2	It is proposed to add the highlighted text in the paragraph: "The operating organization shall develop its emergency plan in accordance with a risk assessment that considers site specific conditions. The events that shall be considered in the risk assessment include those that lead to a nuclear or radiological emergency and events involving a combination of a nuclear or radiological emergency with a non-radiological emergency."	It would be better to add "in the risk assessment" in the sentence to clarify it. Otherwise, the connection between two sentences will be lost.			x	Clarification not necessary.

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391 Saudi Arabia	NUSSC	7.19	It is proposed to retain the text of paragraph 5.8B, SSR 2/2 Rev.1 i.e. "The accident management programme shall include instructions for the utilization of available equipment — safety related equipment as far as possible, but also items not important to safety (e.g. conventional equipment)."	The existing text of SSR 2/2 Rev. 1 is more succinct.	x	The accident management programme shall include instructions for the utilization of equipment located both on and off-site. This shall be safety related equipment as far as possible, but items not important to safety (e.g. conventional equipment) may also be used.		
392 Saudi Arabia	NUSSC	7.24	It is proposed to modify the text as follows: The accident management programme shall ~~provide~~ ensure that operating personnel ~~with~~ have appropriate competence, systems and technical support.	The proposed text will make the statement clearer.	x			
393 Saudi Arabia	NUSSC	8.3	It is proposed to add highlighted text in the paragraph: "For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide a commissioning programme to enable representatives from the operating organization to witness commissioning tests at the factory and at the site. The operating organization shall submit the commissioning program to the regulatory body for	the role of the regulatory body needs to be incorporated to ensure the safety during commissioning phase of modules that are being fabricated in a factory.	x	For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide a commissioning programme to enable representatives from the operating organization, or regulatory body as appropriate, to witness commissioning tests at		

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			approval and identification of the hold points as appropriately.			the factory and at the site.		
394 Saudi Arabia	NUSSC	8.10	It is proposed to retain the text of paragraph 6.10, SSR 2/2 Rev.1 i.e. "From the commencement of commissioning, reviewed and approved arrangements for work control, modification control and plant configuration control shall be in place to meet the conditions of the commissioning tests."	The existing text of SSR 2/2 Rev. 1 is more succinct.	x			
395 Algeria	NSGC	3.22/2 . . The level of risk	. The level of risk	There are two points, remove one.	x			
396 Algeria	NSGC	3.27/2 practices and other measures such as a strong safety culture.	practices and other appropriate measures such as a strong safety culture.	To be more precise about "other measures" and only appropriate measures have to be considered	x			
397 Russia	NUSSC	1.7	Delete the text «transportable reactors and microreactors».	Proposal to delete the text «transportable reactors and microreactors»: - According to the DPP the document does			x	The revision of SSR-2/1 has only just started and so if we wait until the revised

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				not address the specificities of transportable reactors and microreactors. Specifically, aspects such as commissioning in multiple locations (e.g., initial criticality tests conducted in one location and subsequent commissioning in another) are not considered in DS532. Additionally, some operational activities could take place in different locations, such as power operation at the operational site in the host state while refueling and maintenance occur at a service center in the supplier state. That is also not considered in DS532 - Transportable reactors and microreactors				document is published then it will be 4-5 years before we can start the incorporation of transportable and microreactors. SRS 123 mentioned these and when the DPP was written the term SMRs was used to cover the new types of smaller reactors. Therefore I believe that we should retain the reference to transportable/microreactors.

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				are not covered by SSR-2/1 (Rev.1). Therefore, mentioning these reactors in DS532 is inconsistent with paragraph 1.2 of DS532, which states that DS532 is harmonized with SSR-2/1 (Rev.1). We strongly believe that this is unacceptable. Such changes should be preceded by changes to SSR-2/1 (Rev.1)				
398 Russia	NUSSC	1.7	Delete the text «alternative operating models (including autonomous systems and remote monitoring and intervention capabilities)»	Alternative operating models (including autonomous systems and remote monitoring and intervention capabilities) are not covered by SSR-2/1 (Rev.1). Therefore, mentioning these operating models in DS532 is inconsistent with paragraph 1.2 of DS532, which states that DS532 is harmonized with SSR-2/1 (Rev.1).			x	See above comment

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399 Russia	NUSSC	2.1, 2.2	Propose to modify the para	Paragraph 2.1 of DS532 states that 'the operating organisation shall discharge this responsibility through a management system established in accordance with the requirements of GSR Part 2'. Paragraph 2.2 of DS532 defines the requirements for senior management of a nuclear power plant (senior management 'shall have the necessary authority (in accordance with their defined accountabilities) to ensure the safe operation of the plant'), which do not take into account all the requirements for senior management of a nuclear facility specified in paragraph 2.2 of GSR Part 2 (in fact, the requirements in DS532 are lower than those in GSR Part 2).			x	The comment is not clear to me and without proposed example of how you think the text should change it is difficult to see what is required. The term ….includes….is not exhaustive but illustrative so not sure what you are wanting to change.
400 Russia	NUSSC	2.11	Propose to modify the para	Propose to remove or to modify the sentence: The term «corporate organization» is not			x	The influence of corporate organization on the safe

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				defined and is absent in the IAEA Safety Standards and IAEA Nuclear Safety and Security. Requirements for corporate organizations are also absent in the IAEA Safety Standards. The term «governance model» is not defined and is absent in the IAEA Safety Standards and IAEA Nuclear Safety and Security. Additionally, propose to remove any mention of «corporate organization» in all other sections of DS532.				operation of a NPP can be significant. Just because the terms are not yet included in the IAEA glossary doesn't mean they cant be used in safety standards.
401 Russia	NUSSC	2.14	Propose to modify the para	Propose to modify the sentence as it uses an unclear and undefined term, «critical role».	x	The structure of the operating organization shall be specified so that all roles that are important for safe operation are specified and described.		
402 Russia	NUSSC	2.15	Propose to modify the para	Paragraph 2.15 of DS532 stipulates the need to establish a «design authority» (A designated «design authority» shall be established to ensure that the overall	x	The operating organization shall have overall responsibility for the maintenance of the design integrity of the plant. A designated 'design authority' shall be established to ensure		

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				integrity of the nuclear power plant design is maintained at all stages of the plant lifetime). However, DS532 does not specify whether this «design authority» is part of the operating organisation or a separate organisation, nor does it specify what responsibility this «design authority» has for the safe operation of the nuclear power plant.		that the overall integrity of the nuclear power plant design is maintained at all stages of the plant lifetime. The objectives, roles, responsibilities and lines of communication of the design authority shall be established, implemented and documented…..		
403 Russia	NUSSC	2.15	Propose to modify the para	Paragraph 2.15 of DS532 states that «Managers shall promote an attitude of safety consciousness among plant staff (see para. 5.2 of GSR Part 2 [3])». However, paragraph 5.2 of GSR Part 2 refers to a «common understanding of safety and of safety culture», and the use of the term «safety consciousness» is not provided for in GSR Part 2.	x	Sentence deleted.		
404 Russia	NUSSC	2.17	Propose to remove the para	Propose to remove the para 2.17 since:			x	Project management organization

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				The term «project management organization» is unclear and undefined. The requirements for a «project management organization» are not present in the IAEA Safety Standards, making the proposed novelty unjustified.				form an important part of the operation of NPPs. Just because the concept is not currently included in Safety Standards doesn't mean that it cant be introduced.
405 Russia	NUSSC	2.18	The operating organization shall be responsible for ensuring that the necessary knowledge, skills, attitudes and safety expertise are sustained at the **operating organization**, and that there are adequate provisions for ensuring long term human resources.	Replace word «plant» with «operating organization» since the requirement shall be applicable to the whole operating organization.	x			
406 Russia	NUSSC	3.11	Propose to remove the sentence: «In the case of multiple unit plants, the simulator shall allow several units to respond simultaneously, if they are controlled within one control room».	Controlling multiple units from a single control room contradicts Req. 33 and 65 of SSR-2/1 (Rev.1). Therefore, mentioning the possibility of shared control room in DS532 is inconsistent with para 1.2 of DS532, which states that DS532 is harmonized with SSR-2/1 (Rev.1). We strongly believe that this is			x	The revision of SSR-2/1 has just started and this concept will be included in the revised standard.

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				unacceptable. Such changes should be preceded by changes to SSR-2/1 (Rev.1)				
407 Russia	NUSSC	3.15	Propose to modify the para	In paragraph 3.15 (requirement 9: «Operational limitations and conditions»), DS532 states that operational limitations and conditions shall be established taking into account appropriate margins commensurate with the risks and uncertainties associated with equipment for which limited operational experience is available, as well as with new or innovative technologies. **For systems that are the first of their kind, a conservative approach should be used, which should then be reviewed and, if necessary, adjusted after operational experience has been gained**' the bold			x	The second sentence relates to the same topic as in the first sentence OLCs.

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				sentence is not related to the text of the first sentence and to requirement 9 as a whole – it does not relate to the topic «Operational limitations and conditions».				
408 Russia	NUSSC	3.16, 3.17	Propose to modify the para	Paragraph 3.16 of DS532 states that «The operational limits and conditions shall include requirements **for normal operation**, including shutdown and outage stages, and shall cover actions to be taken and limitations to be observed by the operating personnel». However, according to paragraph 3.17 of DS532, «operational limits and conditions» include «safety limits», «limiting settings for safety systems», and «action statements **for deviations from normal operation**».			x	The phrase shall include is not exclusive, so it means that the OLC should also contain action statements to correct deviations from normal operations.

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409 Russia	NUSSC	3.46	Propose to revise the para: «The habitability and good condition of control rooms (in-plant or remote) shall be maintained».	IAEA Safety Requirements SSR-2/1 (Rev.1) does not consider remote control rooms (please see requirement 65). Therefore, mentioning the possibility of remote control room in DS532 is inconsistent with paragraph 1.2 of DS532, which states that DS532 is harmonized with SSR-2/1 (Rev.1). We strongly believe that this is unacceptable. Such changes should be preceded by changes to SSR-2/1 (Rev.1)			x	SSR-2/1 is being revised and will include them.
410 Russia	NUSSC	4.15	Propose to modify the para	Para 4.15 of DS532 states that «The operating organisation shall establish maintenance programmes for non-permanent equipment (including all types of passive equipment) **to be used for severe accidents** [2], in order to maintain high reliability of this equipment» (where [2] refers to SSR-2/1 (rev1)). However, according to SSR-2/1	x			

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				(rev1) (SSG-2, SSG-54), «non-permanent equipment» is not defined as equipment used only for severe accidents. It is proposed to delete «to be used for severe accidents» while retaining the reference to [2]).				
411 Russia	NUSSC	Section 5. Title	Propose to change the title of section 5 to «ENGINEERING ASPECTS»	Propose to change the title of section 5 (as an example we can recommend having a look at Req. 10 in GSR Part 4 (Rev.1)	x			
412 Russia	NUSSC	5.31	The packaging, carriage and transport of unirradiated and irradiated fuel shall be carried out in accordance with appropriate national regulations for domestic transport and, in the event of international transport, with SSR-6, Regulations for the Safe Transport of Radioactive Material [10].	It is proposed to restore the formulation of para 7.27 SSR-2/2 (Rev.1). The current formulation used in para 5.31 of DS532 appears inadequate. For instance, transportation within plant site boundaries (i.e., not in the public domain) is not covered by SSR-6 (Rev.1) (see SSR-6, para 107 b).	x			

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413 Russia	NUSSC	5.34.	Propose to modify the sentence: «If a new reactor module is added, the frequency of periodic safety review of the nuclear power plant shall be consistent with the date at which the first module was installed».	Propose to provide a definition to the term «reactor module». The DPP do not allow for the extension of the DS532 to nuclear installations with a «reactor module».			x	See previous comments and IAEA Glossary will need to be update with new terminology arising from new reactor designs.
414 Russia	NUSSC	8.3	Propose to revise paragraph: «For modules that are to be built in a factory and transported to a site, the designer or vendor shall provide a commissioning programme to enable representatives from the operating organization to witness commissioning tests at the factory and at the site».	Please provide the definition to the term «module» and explain the difference with the term “reactor module” (see above). Please also explain what criteria for a module are to be considered as being «built in a factory». The DPP do not allow for the extension of the DS532 to nuclear installations with a «module».			x	Modulization is the new concept for the group of new designs commonly called SMRs. These designs allow for modules such as the reactor part, turbine part etc to be added together and further information can be found in SRS 123.

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415 Russia	NUSSC	8.3	Propose to modify text: «The designer or vendor shall also specify any additional tests to be performed on-site and any tests needed to ensure that the safety functions of the modules have not been adversely affected during transportation to the site».	Propose to modify the text since the term «safety functions of modules» are not defined. The DPP do not allow for the extension of the DS532 to nuclear installations with a «module».	x	Changed to…. safety function of equipment contained within the module.		
416 Russia	NUSSC	8.7.	Propose to remove the text: «Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety function with regard to severe accidents».	The statement appears to be unfounded: - Safety systems are designed to handle Design Basis Accidents (DBAs) and not severe accidents, as outlined on page 5.24 of SSR-2/1 (Rev. 1). It is unclear why the requirement for specific attention is based on the passivity of the systems.	x	The commissioning programme shall provide reference data to characterize structures, systems and components. These reference data shall be retained and used to ensure the safety of the plant and for subsequent safety reviews. Special attention shall be paid to the commissioning programme for passive safety systems to ensure that they have been correctly installed and that commissioning activities have not adversely impaired their ability to fulfil their safety functions.		

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417 Indonesia	NUSSC	2. General Management of a Nuclear Power Plant Req. 1	The operating organization shall have the prime responsibility for safety at all stages related to the operation of a nuclear power plant	Emphasis on commissioning is not found in requirement 1 at Section 2 GENERAL MANAGEMENT OF A NUCLEAR POWER PLANT, therefore, the next requirements (requirement 2 and so on) are not explicitly stated to cover the commissioning stage to ensure that management responsibilities during commissioning are met. In Requirement 1: Responsibilities of the Operating Organization, the phrase “in the operation” is proposed to be changed to “at all stages related to the operation”.	x			

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418 Indonesia	NUSSC	2.19	The long-term staffing plan shall include provisions to ensure sufficient familiarization with the structures, systems, and components of the plant for the transition from commissioning to operation and to ensure sufficient operational and design knowledge for the transition from operation to decommissioning.	There is no description in staffing plan about the transition from commissioning to operation.	x	2.18. The operating organization shall be responsible for ensuring that the necessary knowledge, skills, attitudes and safety expertise exist and are sustained within the operating organization, for all plant stages (commissioning, operations and transition to decommissioning) and that there are adequate provisions for ensuring long term human resources.		
419 Indonesia	NUSSC	Req. 26: Aging Management Program	New line after 5.49 The operating organization shall establish a data collection and record-keeping system for ageing management at the early stages of the plant's life and maintain it throughout the lifetime of the plant.	There is no mention of record of information related to ageing management, which is very important to ensure the effectiveness of ageing management activities.	x			
420 Indonesia	NUSSC	Req. 32: Accident Management Program	7.17. The accident management programme shall include the preparatory measures, procedures, guidelines, and equipment that are necessary for preventing the progression of accidents, including severe accidents, and for mitigating their consequences if they do occur. The accident management programme shall be consistent with the plant design and its current	There is no emphasis on the consistency of accident management programme with plant design and current configuration (there can be a change in a plant's configuration).	x			

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			configuration, documented, periodically reviewed and, as necessary, revised.					
421 Iran	NUSSC	Para 1.10 Line 3 &4	Modify sentence in end of line 3 as: Section 5 establishes the requirements for engineering.	According to TOC Section 5 it should be modified.	x			
422 Iran	NUSSC	REQUIREMENT 2	Modify the title of Req.2 as: MANAGEMENT SYSTEM OF THE OPERATING ORGANIZATION	According to heading of other requirements, this title for req.2 is proposed.	x			
423 Iran	NUSSC	Para 2.22	First sentence of para 2.22 propose to modify as: A staff health policy shall be established, developed, monitored and regularly updated by…	According to the meaning of **develop** and **establish**, it has been recommended to change the order of the verbs in the sentence.	x			
424 Iran	NUSSC	Para 2.23	Add following item as item (h): Ensure through surveys and evaluations that the staff have attained an adequate level of skills, knowledge and information.	It has been recommended to mention this subject to this Para. According to the stage of safety culture, after training, evaluation plays an important role to show the safety culture improvement.	x	Covered in (e)		

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425 Iran	NUSSC	Para 3.46/ 1st line	Modify first line as: The habitability, good condition and accessibility of control rooms (in-plant or remote) shall be maintained.	As mentioned in SSG-39, In addition to habitability and good condition, accessibility of control rooms shall be considered.	x			
426 Iran	NUSSC	REQU IREMENT 13	Add a Para as following: The operating organization shall define and implement access restrictions to control rooms for all personnel. This requirement is aimed at ensuring the safe and secure operation of the power plant, and is critical to enabling control room staff to perform their duties accurately and promptly during normal operation, anticipated operational occurrences and accident conditions.	To maintain control rooms in a suitable condition, it is recommended to mention the access restriction in Req. 13.	x	1.1 Included in: new paragraph 3.31; Distractions to control room operators shall be minimized. To avoid overburdening control room operators and to allow them to focus on their responsibilities for safety, work shall be scheduled to reduce simultaneous activities as far as possible.		Further details on how to minimise distractions to control room operators can be found in SSG.
427 Iran	NUSSC	Para 3.65	Add following sentence to end of Para: The operating organization shall ensure that records and reports are maintained categorized in a secure and safe environment in order to prevent loss or damage.	Para 3.65 is incomplete. This requirement shall address the methods of document storage, secure and safety.	x	The records and reports shall be categorized and retained in a secure and safe environment for the periods required by the regulatory body. All records shall be readable, complete,		

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						identifiable and easily retrievable.		