

**DS 426 Periodic Safety Review of Nuclear Power Plants (Draft 3, 27/11/2009)  
FOR OFFICIAL MEMBER STATES COMMENTS**

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<b>General comments</b>					
JAP General 1	General		<p>The scope and contents of the PSR, the way of the PSR implementation and the regulatory activities relevant to the PSR vary depending on the nation and the national rules.</p> <p>Taking into account the above mentioned point, we would like to propose to modify the relevant paragraphs in this document so that such consideration is clearly reflected.</p> <p>See relevant comments on paras. 2.3, 2.12, 4.30, 7.1, 7.2, 8.23, 8.24, 8.27, 9.4 and <i>FIG.5</i>.</p>	It was corrected			
UK-1	General		<p>Overall the text shows signs of increased maturity over the previous version.</p> <p>It would be useful to have a paragraph recognizing that in some cases improvements may come about as part of a structured continuous improvement programme, in which case many of the PSR key factors could be incorporated into this programme. There would still be a value in a 10-year strategic PSR summary (e.g. global assessment), but this can be based upon a body of living reviews that constitute the bulk of the PSR. Note: Robin</p>		It was Considered in Sections 4 and 5		

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			Knox from BE (on the drafting committee) will be able to detail work in developing such a scheme.				
UK-2	General		The document has appropriately captured the relationship between changes in the Safety case datum (perhaps set 10-years previous), Engineering Substantiation, scope of work undertaken, and the potential cumulative effect of modifications.	It was considered			
UK-3	General		The flow charts towards the back of the document are useful and reflect the process in quite a broad way. One improvement would be for the flowcharts to perhaps consider inclusion of the input that is necessary from other stakeholders such as RPA, Industrial Safety, Engineering Substantiation, etc; in particular Figure 3. It seems that Part 6 "Global assessment" tries to capture this approach, however Appendix A and Table A1 in particular are quite hard to navigate. While we appreciate that the table is attempting to capture a very wide remit, perhaps expanding the existing explanations would improve clarity.		It was Considered  Explanations is in the text		
UK-4	General		The remaining plant lifetime is mentioned in some parts of the document. Consider whether the SSCs should perform their function until such time as the		It was Considered until the end of planned (old or new) operational life,		

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			decommissioning of that part of the plant no longer requires the “use” of such SSCs. Clarity is needed.		PSR does not cover decommissioning		
UK-5	General		It is assumed that the support facilities used by the NPP form part of the PSR. Clarity is needed.		It was considered		
UK-6	General		<p>The document, especially in early sections, has a great many typographical errors including:</p> <ul style="list-style-type: none"> <li>▪ consistency of punctuation in bullet points</li> <li>▪ consistency in use of programme(s) or program(s)</li> <li>▪ consistency in use of licence or license</li> <li>▪ consistency in the use of Global assessment or global assessment (should it be Global Assessment?)</li> </ul> <p>It needs to be proof-read by a technically competent, native English speaker. We have therefore tried to refrain from making specific non-technical suggestions, but will be providing details of this type of comment at the forthcoming Consultants Meeting.</p>		It was Considered Further more IAEA editor will review the document before NUSSC		
UK-7	General		The plurality of some words needs consideration. For example, from Para 3.2 “PSRs can be used as a mean(s) to identify time.”; both mean and means are “legitimate” words in this context. If “mean” is		It was considered Further more IAEA editor will review the document before NUSSC		

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			correct, perhaps adding “(average)” after the word would clear up any potential misunderstanding.				
SP-1	General	The number of the factor of safety is referred and given importance in many parts of the document. This is not included in Chapter 5, where it should be done because it makes it easier to follow the text.			It was considered		
SP-2	General	Review the edition of the text, as one can easily distinguish the different styles of different authors (especially in Appendix A). Agreement needs to be done on the drafting criteria.			It was considered IAEA editor will review the document before NUSSC		
SP-3	General	The references are differently quoted along appendix A. This criteria should be agreed too. On the other hand, there are references missing. It would be more useful to include all the OIEA ones and other important for the safety from other origin in a Appendix of References.			It was Considered IAEA editor will review the document before NUSSC		
SP-4	General	Some States Members are having a continued survey of some of the safety factors included in this document, or they have specific programmes for doing so, such as PSA, emergency plans... This is why the Regulatory Body should define the specific scope for each NPP.			It was considered		
SP-5	General	Can exist NPP with important documentation lack (e.g maintenance records). PSR should identify this problem and find corrective actions although in some cases it is impossible to recuperate this information,			It was considered		

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		especially when involving old records.					
SP-6	General	Many points of chapter 7 are repeated in chapter 8. Repetition must be removed.			It was considered		
SP-7	General	Chapter 3 focuses too much on long term operations, and many of the affirmations made are equally valid for licence renovation. Some other points, move away from the RPS object. It would be useful to make this chapter lighter and more simple			It was considered		
SP-8	General	Point 5.45 mentions “quality management provisions” referring to the maintenance of qualification measures. This point should be included in all safety factors.			It was considered		
ENISS-1	General		<p>This guide and in particular section 5 is too detailed and complex. It would be difficult for a licensee to use such a guide. We suggest simplifying this section.</p> <p>There seem to be a lot of repetitions in this guide. This is within the text and also between the text and the appendices (app. A2). It should be aimed at deleting repetitions as far as possible. For instance, 2.15 is identical to 5.11, 4.2 to 5.15, 5.15 to 8.16, 4.12 and 8.4 partially overlapped.</p> <p>To make the guide more user friendly the following principle for modification of this draft</p>		It was considered Repetitions were deleted, APPENDIX 2 was moved to ANNEX		

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Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			<p>should be applied:</p> <ol style="list-style-type: none"> <li>1) The content of the “Safety Factors Interface Matrix” is clearly outlined in table A.1. Therefore the related part in the tables A.2 regarding Inputs and Outputs should be deleted completely.</li> </ol> <p>The paras 5.2, 5.4, 5.5, 5.10 till 5.17 should be removed (repetitions) or transferred to other chapters; details see below.</p> <ol style="list-style-type: none"> <li>2) The “Objectives” should be kept.</li> <li>3) “Scope and Tasks”: these recommendations are more or less already included in the tables A.2. If not already included in the table these should be integrated in the tables A.2. For users it seems much more effective to find all the recommendations at one place. Therefore “Scope and Tasks” should be completely deleted.</li> <li>4) “Methodology”: <ul style="list-style-type: none"> <li>• The recommendations already included in the tables A.2 should be deleted.</li> <li>• The remaining paragraphs should be kept.</li> </ul> </li> </ol> <p>For further clarification this modification principle is applied as an example for the safety factor “Plant Design”; details see below and our comments to chapter 5 (see also Annex)</p>				

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Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
CAN B-1	Throughout Doc. (BPLP)		Number of typos, but not identified in this technical review.	It was corrected			
UK-8	Paras 1.2, 2.2 & elsewhere		As written, the text does not make it clear what the difference is between routine reviews and PSRs. Clarity is needed.		It was considered		
		<b>SPECIFIC COMMENTS</b> <b>Section 1</b>					
SP-9	1.1	<b>SPECIFIC COMMENTS</b> Add at the end: “ <b>The technical terms used in this Safety Guide are described in the IAEA Safety Glossary</b> ”		It was corrected			
SP-10	1.2 line 7 <sup>th</sup>	Add: ...operation against “ <b>applicable</b> ” current safety standards...	Not all new safety standards are applicable for a specific NPP	It was corrected			
UK-9	Para 1.2, 4 <sup>th</sup> sentence	Modify to read: “ <b>The Periodic Safety Reviews</b> are complementary to the routine and special safety reviews and do not replace them.”	Removes the potential for ambiguity.	It was corrected			
ENISS-2	1.3	The purpose of this Safety Guide is to provide recommendations and guidance on the conduct of a PSR for an <del>existing</del> <u>operating</u> nuclear power plant. The Safety Guide is intended for use by operating organizations, regulatory bodies and their technical support organizations, consultants and advisory bodies.	To be in line with the other text of DS426: PSR should be done for operating NPPs. Existing NPPs also include NPPs which are in the commissioning and decommissioning phase.	It was corrected			
ENISS-3	1.4	This Safety Guide deals with the PSR of an <del>existing</del> <u>operating</u> nuclear power plant. ...	To be in line with the other text of DS426: PSR should be done for operating NPPs. Existing NPPs also include NPPs which are in the commissioning and	It was corrected			

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			decommissioning phase.				
CAN O-1	Section 1.3 (OPG)	This can be interpreted that regular organization should perform PSRs.			It was considered		
CAN A-1	Section 1.4 (AECL)	“PSR could be used as support in the decision making process for licence renewal and for long term operation.”	Or for restart of an NPP following prolonged shutdown.	It was corrected			
CAN O-2	Section 1.4 (OPG)	Extension? Or early shutdown. Should be balanced			It was considered		
CAN A-2	Section 1.5 (AECL)	“The review process described in this Safety Guide is valid for NPPs of any age, but may have a wider applicability with a graded approach, for example, to research reactors and radioactive waste management facilities.” The term graduated approach is suggested for facilities other than NPP but no definition is provided or references in the document. Suggest to add the definition to avoid confusion in the use of PSR for smaller facilities.	The term graduated approach			It was not considered because graded approach is different from graduated approach	
CAN A-3	Section 1.5 (AECL)	I believe that it would be useful if the meaning/implication of “graduated approach” is expanded upon. As stated it leaves a lot of latitude for interpretation (i.e., licensee vs. regulator).	The term graduated approach			It was not considered because graded approach is different from graduated approach	
Egy-1	Para 1.5 Page5	The primary responsibility for conducting a PSR lies with the operating organization and the results should be sent to the regulatory body for reviewing and taking appropriate licensing actions.	I suggest to added this comment at the end of para 1.5 , because who will do the job and review it should be mentioned at the beginning of the document ( although it is described at para 7.1 to 7.4 page 55 )		It was reflected already in the para 7.1		
CAN A-4	Section 1.6 (AECL)	The roles and responsibilities “are discussed in Section 7”, saying they’re			It was considered		



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		defined sounds too prescriptive, which is not what I believe is intended.					
UK-10	Para 1.6		Consider splitting this paragraph into two or use bullet points to improve clarity.		It was considered		
UK-11	Para 1.6		There needs to be consistency within the document, for example use of Section or section.		It was considered		
	<b>Section 2</b>						
UK-12	Para 2.1, 2 <sup>nd</sup> sentence	Modify to read: “Lessons have been learnt from operating experience, together with the development of better analytical methods.”	Reword the text to improve clarity.	It was corrected			
SP-11	2.1 4 <sup>th</sup> line	Change “need to” for “ <b>should</b> ”	Is the normal form in a Standard	It was corrected			
UK-13	Para 2.2	Modify to read: “... future planned operation. Also, some NPPs store spent fuel in, or adjacent to, the reactor building often with intended storage lasting for several decades to over 100 years after the reactor has shutdown. The PSR should therefore include the spent fuel storage facility with the objective of providing sufficient time to resolve the problem or enable the spent fuel to be removed within a safe operating environment, and in compliance with transport regulations.”	To address the fact that many NPPs will be used as long-term interim stores for the spent fuel they produce. The removal of spent fuel will take many years and the infrastructure requirements (transport casks, export facility, receipt facility at another site, rail or road infrastructure) extend this timescale further. It is therefore important to understand that if the spent fuel has to be removed for safety reasons then safety may be compromised at some stage due to the long timescales involved. This needs to be factored into the review process. The time needed to remove the fuel will become progressively longer as			Rejected	NUSSC decision

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			the volume of spent fuel increases over the operating period.				
JAP 1	2.3/1	In numerous Member States, PSR forms part of the regulatory system while the scope and contents of the PSR, the way of the PSR implementation and the regulatory activities relevant to the PSR vary depending on their national rules.	See General comment 1.	It was corrected			
<u>GER-1</u>	2.5/7 <sup>th</sup> bullet	changes in staffing levels or <del>the loss of experienced staff</del> in the experience of staff	During a 10-year period there will always be a loss of experienced staff; the important focus should be on the overall experience of the whole staff	It was corrected			
SP-12	2.6	Remove this point	This point is included in the previous one. The loss of knowledge and experience are compensate for a good recording process	It was corrected			
CAN A-9	Section 2.6 (AECL)	Expand on the meaning/significance of “to a loss of continuity.”				Rejected	
SP-13	2.7	Change the point: “The PRS is a long process that can take about 3 years. The length of the review process has a great dependence on the availability and retrievability of of relevant information, the organisational structure of NPP and their process for maintaining safety.	The process can take 3 years on average, but this time can be very different among NPP, depending on the documentation.	It was corrected			
<u>GER-2</u>	2.7/1	<del>On average, the PSR review process takes about 3 years.</del> To provide a timely input the PSR review process should be completed within 3 years for the second or subsequent PSRs.	Rather than stating factual information a reference target should be provided.	It was corrected			
UK-14	Para 2.8, 4 <sup>th</sup> sentence	Modify to read: “This Safety Guide is not intended to	The additional text encourages the practice of continuous safety	It was corrected			

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		discourage such alternative arrangements <b>as they allow safety to be improved on a continuous basis and avoid the need for a large programme of corrective actions arising from a Periodic Safety Review.</b> ”	improvement.				
UK-15	Para 2.8, 5 <sup>th</sup> sentence	Modify to read: “However, when an alternative approach is followed, it is important that it satisfies the objectives for a Periodic Safety Review, together with the objectives of other licensing, regulatory and operational processes.”	Reword the text to improve clarity.	It was corrected			
SP-14	2.8	Add at the end of the first pattern:	Some safety factors can be treated separately by means of routine comprehensive safety assessment programs.		It was considered		
FIN-1	2.9	The adequacy and effectiveness of the arrangements that are in place to ensure plant safety until the next Periodic Safety Review, or where appropriate, until the end of planned operation.	Delete “in case in which the NPP will cease operation before another Periodic Safety Review is performed ...”. Will then be in line with 2.16 and Section 3.	It was corrected			
UK-16	Para 2.9, 3 <sup>rd</sup> bullet	Modify to read: “The adequacy and effectiveness of the arrangements and equipment that are in place to ensure plant safety until the next Periodic Safety Review or, in cases where the NPP will cease operation before the next Periodic Safety Review in the 10-year cycle is due, until the end of planned operation;”	Simplify the text to improve clarity.  Add “ <b>and equipment</b> ” to make it clear that this should also be shown to be “up to the job” until the next PSR.	It was corrected			
UK-17	Para 2.9	Re-order the bullet points, so that the first bullet “The extent to which the	The PSR is primarily for the licensee and secondly for the	It was corrected			

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		licensing basis remains valid” becomes the last bullet.	regulator; the current ordering gives the reverse impression.				
UK-18	Para 2.9	Consider adding a new bullet point to read: “To identify potential safety risks that may necessitate the removal of spent fuel from the spent fuel storage facility and to develop contingency plans to remove the spent fuel or mitigate the risk(s) within timescales approved by the Regulator.”	Compliance with transport regulations in the public domain will be a factor that affects timescales and strategies.	It was corrected			
CAN A-10	Section 2.9 (AECL)	“The safety improvements that need to be implemented within the specified schedule.” - Suggest to add the prescribed period to implement the improvements.		It was corrected			
ARM 1	Para 2.10 (the first doc)	<ul style="list-style-type: none"> <li>Proactive and detailed assessment of current safety status of the plant</li> </ul>	We think that it is another purpose of PSR.			It was not accepted - current purpose incorporated it already.	
<a href="#">GER-3</a>	2.11/1	The operating organization <del>should have</del> has the prime responsibility ...	This operator responsibility should not be optional.	It was corrected			
<a href="#">GER-4</a>	2.12/3-5	... This safety guide recommends the use of 14 safety factors. However, the number of safety factors and/or their grouping may be different according to the specific needs of the operating organization and the particulars of the nuclear facility. When the concept of safety factors or the number of the safety factors is different, the comprehensiveness of the review should be ensured by other means.	Sentence taken from 4.4 (see also 4.4)	It was corrected			
JAP 2	2.12/3-5	When the concept of safety factors or the number of the safety factors is	See General comment 1.	It was corrected			

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		different, the comprehensiveness of the review should be ensured by other means according to the national rules.					
UK-19	Para 2.12, 2 <sup>nd</sup> sentence	Modify to read: “The comprehensive assessment of overall plant safety is a complex task, and can be aided by appropriate subdivision of tasks within the overall.”	Reword the text to improve clarity.	It was corrected			
UK-20	Para 2.13, 2 <sup>nd</sup> bullet	Define SSCs to read: “Actual condition of <b>structures, systems and components</b> (SSCs)”	SSC is not defined until Para 4.1; the acronym should be defined in full when first used.	It was corrected			
FIN-2	2.13	The list of safety factors: <i>Performance and feedback of experience</i> (8) Safety performance (9) Operational experience feedback	Safety factor (9) would be clearer if the whole OEF programme (internal and external events and operating experience, research findings, ...) would be reviewed under one safety factor. Safety factor (8) should focus on the indicators and trending.			Rejected	NUSSC decision
FIN-3	2.13	The list of safety factors: <i>Management</i> (10) Organisation... (11) Procedures (12) Human factors	Replace “The human factor” with “Human factors”. Move Emergency planning under new area of “Radiation Protection and waste management”			Rejected	NUSSC decision
FIN-4	2.13	The list of safety factors: <i>Radiation protection and waste management</i> (13) Radiation protection of workers (14) Radiological impact on the environment (15) Emergency planning (16) Waste management on site	Although an alternative approach is mentioned in 5.3, it would be clearer to have the whole area for radiation protection already in this IAEA guide. It is strange to mention only radiological impact on the environment (current SF (14)) and hide all other aspects in different safety factors. SF (14) is also already overlapping SF (8), see comment no. 22.			Rejected	NUSSC decision

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ARM 2	Para 2.13.	(4) Ageing management programme:	We propose to change the name of the safety factor, because the ageing itself should be reviewed within the scope of the review of the safety factor (2). But, within the scope of the review of the safety factor (4) the ageing management programme is mainly addressed.			Rejected	Not only reassess the AM program.
ARM 3	Para 2.13	(10) Organization and Management System. (11) Safety Culture and Leadership for Safety	We propose to divide the safety factor (10) into two and to add Leadership for safety, because two first of them are more related to a system and second two relate to behaviour, so during review of those factors reviewers will evaluate very different aspects.			Rejected	NUSSC decision
CAN A-5	Section 2.13 (AECL)	Why are Quality Assurance and Safeguards not considered as separate Safety Factors?				It was not accepted	NUSSC decision
CAN A-6	Section 2.13, Bullet 6 (AECL)	“(6) Probabilistic safety analysis”	Sometimes called 'assessment' in here rather than 'analysis'. Assessment by definition is more appropriate.	It was corrected.			
CAN A-7	Section 2.13-Page 10 (AECL)	Suggest that Radiation Protection be listed as a separate safety factor in Clause 2.13.				It was not accepted	NUSSC decision
UK-21	Para 2.15, 1 <sup>st</sup> bullet	Modify to read: “Positive findings (i.e. strengths): where current practice is equivalent to good practice in comparison to current codes and standards or industry practices, and”	Reword to improve clarity. If each instance of meeting good practice was a strength, there could be thousands!	It was corrected			
UK-22	Para 2.15, 2 <sup>nd</sup> bullet	Modify to read: “Negative findings (i.e. deviations): where current practices are not of a	Reword to improve clarity.	It was corrected			

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		standard equivalent to current codes and standards or industry practices and the current licensing basis, operating plant documentations or procedures.”					
CAN A-8	Section 2.15 (AECL)	The definition of Strength and Derivation need to be revised as it leaves the wrong impression. Strength should be “beyond current requirements”; NPP is expected to meet current requirements. Derivation has a negative connotation and should not be based on the fact that it is different; being different can be an improvement. Thus both definition should be revised or removed. The suggestion of only two finding category may be too simplistic.			Partially accepted		
UK-23	Para 2.16	Include a statement here, stressing that significant adverse findings need to be acted upon promptly.	Though this statement is made later in the document, it is a key General Recommendation and should therefore be included here.			It was rejected	It is in Section 4
UK-24	Para 2.17, 1 <sup>st</sup> sentence	Modify to read: “To integrate the results of the reviews of individual safety factors, the operating organisation...”	Modify to improve clarity.	It was corrected			
RU-1	2.18, second marker, sentence 1	PSR review – where the operating organization performs the review in accordance with an agreed PSR Basis Document (as described in paragraph 4.6).	Definition of the PSR Basis Document is given not in paragraph 4.3, but in paragraph 4.6.	It was corrected			
		<b>Section 3</b>					
UK-25	Para 3.1, 2 <sup>nd</sup> sentence	Delete “set forth”	The meaning of this phrase here is unclear.	It was corrected			
UK-26	Para 3.2, 1 <sup>st</sup> paragraph	This first paragraph under 3.2 repeats previous statements. It should therefore be deleted or re-phrased so	This paragraph adds no value to the document.		It was considered		

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		that it adds something new to the document.	If these paragraphs are retained, they should both be numbered for consistency with the style adopted throughout the document.				
US-1	3.2 / 1-4	“PSRs can be used as a mean to identify time limiting features of the plant in order to determine if <u>there is a need to modify, refurbish or replace certain systems, structures or components (SSCs) in order to ensure that the designed lifetime of an NPP can be safely extended.</u> ”	Modification, refurbishment or replacement of existing SSCs may allow for safe extensions of operating life.	It was corrected			
SP-15	3.3	Add on the 2 <sup>nd</sup> line:---PRS “ <b>or with a smaller scope</b> ”	See point 2.8	It was corrected			
FIN-5	3.3	However, when an alternative approach is followed, attention should be given to the scope and objectives of the safety assessments which should follow the objectives for the PSR.	Add the text to the end to emphasize that LTO justification should have similar scope as PSR and not to restrict only e.g. for aging management.	It was corrected			
FIN-6	3.4	Delete the whole recommendation.	This has been already mentioned as a general objective to PSR in 2.9, there is no need to specifically mention it here.		It was modified not to be duplicated		
US-2	3.4 / 2-3	“...prior to entering long term operation (Ref. [8]), the Periodic Safety Review should identify any necessary safety improvements to <del>reassure</del> <u>ensure</u> that the licensing basis remains valid during the...”	Recommend replacing “reassure” with “ensure” since it is a more active verb.	It was corrected			
UK-27	Para 3.5	Modify to read: “The Periodic Safety Review Process can be used to support decision making prior to entering long term operation. Under such circumstances, the Periodic Safety Review should identify any safety improvements necessary to	Modify to improve clarity.	It was corrected			



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		provide reassurance that the licensing basis will remain valid during the period of long term operation. These improvements might include refurbishment, additional systems, structures or components, and/or additional safety analysis and engineering justifications.”					
UK-28	Para 3.5 and elsewhere		Consistency is needed in the spelling of ageing/aging.				
SP-16	3.6	Add on the first line:... is used “to account for” long term....	It is easier to understand	It was corrected			
CAN B-2	Section 3.6 (BPLP)		If a PSR is to be done every 10 years, it is not stated why the entire proposed lifetime period should be examined.			Rejected	Other comments
<a href="#">GER-5</a>	3.6	<del>If a Periodic Safety Review is used for long term operation or license renewal, the proposed new lifetime period should be evaluated as a whole, not only the next 10 year cycle.</del> Furthermore, if the long term operation or license renewal is approved, consistent with the guidance in this document, Periodic Safety Reviews should continue to be performed in a 10 year cycle after the approval of the new end of plant life.	PSR is certainly one tool to assess long term operation, however, for periods much longer than 10 years a separate (additional) assessment should take place; otherwise, the reasoning for a another PSR after 10 more years becomes questionable. E.g. how are contrasting results to be resolved (no aging effects in 20-year long term PSR, however, such effects occur at PSR after 10 more years)?	It was corrected			
US-3	3.6 / 2-4	“...new lifetime period should be evaluated as a whole, not only the next <del>10-year</del> operating cycle. Furthermore, if the long term operation or licence renewal is approved, consistent with the guidance in this document, Periodic Safety Reviews should <del>continue to be performed at the frequency required by</del>	Recommend not providing a time requirement, since the national regulatory authority may opt for a different periodicity.	It was corrected			

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		<del>the national regulatory authority in a 10 year cycle after the approval of the new end of plant life.</del>					
FIN-7	3.6	Delete the whole recommendation.	This has been already covered in 2.9 and 2.16 (see also comment no. 1).		It was modified not to be duplicated		
FIN-24	3.7	... - Safety management improvement programs focused on excellence in all aspects of safety management and human factor activities.	Change the text in the last bullet to make it more clear.		It was modified as “and safety culture instead of human factor”		
ENISS-4	3.8/2	...operation <u>and</u> /or in other licensing <del>basis</del> document....	For clarification, because in some countries the licensing document refer to one document	It was corrected			
<u>GER-6</u>	3.9/2	... should be an input, <del>beside economic arguments,</del> to the decision	The decision whether to apply for long term operation is solely at the discretion of the licensee. Whether he uses economic arguments in this context is irrelevant within this safety guide dealing with periodic safety reviews.	It was corrected			
JAP 30	3.9	The necessary safety improvements <u>for long term operation</u> identified in the Periodic Safety Review should be an input, beside economic arguments, to the decision whether to enter long term operation.	Clarification The safety improvements identified in ordinary PSA must be took place. However, safety improvements <u>for long term operation</u> may be reviewed with other aspects, such as cost for improvement.	It was corrected			
		<b>Section 4</b>					
UK-29	Section 4 Review Strategy and General Methodology	Consider adding a discussion of the process to be followed when a PSR takes place within 10 years of plant final shutdown.	There should be a policy statement or guidance on the process to be followed when the planned final shutdown is close		It was considered		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			enough to potentially interfere with the timescales for the PSR process or for the implementation of safety improvements. When there are only a few years of life remaining, the operating organisation may seek to reduce costs by limiting the scope of the PSR, with the attendant risk that the various safety factors may be inadequately considered. The preferred approach may be to perform a full PSR and consider the remaining life of the plant during the assessment, categorisation, and prioritising of the safety improvements to decide which are to be implemented.				
CAN A-12	Section 4.1 (AECL)	When would waste management facilities be included in a PSR (i.e., what considerations would trigger inclusion)?				R	Not in this guide NUSSC decision
SP-17	4.1	Add on the first line: .....plant <b>“agreed with the Regulatory Body</b>	See point 2.8	It was corrected			
UK-30	Para 4.1, 1 <sup>st</sup> sentence	This sentence needs to be re-phrased as it includes non-radiological safety, which may be beyond legal vires in some member states (e.g. UK).	The current wording contradicts paragraph 4.5.			It was not considered	Editor
UK-31	Para 4.2	This paragraph needs re-phrasing.	The current text is trying – but failing – to say that some aspects can be done generically and some need to be unit-specific. It needs to be reworded to improve clarity.			It was not considered	Editor
<u>GER-7</u>	4.3/4	... should be taken <del>in to</del> into account separately.	Spelling	It was corrected			
ARM 4	Para 4.4	For a comprehensive periodic safety review, this safety guide recommends	Operating organizations should consider the proposed scope of		Modified text		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		that 14 safety factors, grouped in 5 areas (listed in Section 2) should be used and the proposed scope of review and number of safety factors should be considered as minimal.	the review as a minimal in order not to try decreasing it.				
CAN B-3	Section 4.4 (BPLP)		The basis document should not be regarded as an agreement with the regulatory body. Furthermore, this clause seems to be in conflict with Clause 5.9 (which more accurately reflects the purpose of a basis document). Clause 5.9 states “Prior to the review of safety factors all related documents should be listed in Basis document, but during the review process additional documents could be identified.”		Modified text		
<u>GER-8</u>	4.4/1-3	<del>For a comprehensive periodic safety review,</del> This safety guide recommends that 14 safety factors, <del>grouped in 5 areas (listed in Section 2)</del> should be used which are described in detail in Section 5. <del>However, the number of safety factors and/or their grouping may be different according to the specific needs of the operating organization and the particulars of the nuclear facility (covering the scope described in 4.1).</del>	This paragraph partly rephrases 2.12. Therefore this statement should be shortened and the second sentence transferred to 2.12 (see also 2.12)	It was corrected			
ENISS-5	4.5	The precise approach and the review process adopted should be customized to the national legal context and relevant regulatory processes. A Member State may wish to extend the list of safety factors, for example, by considering radiological protection or other issues as separate safety factors	It is unclear what impacts this could be and the text of the DS426 is not describing them.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		or they may combine or group the safety factors differently. <del>A Member State may also extend the scope of PSR to consider non-radiological impact of NPP.</del>					
CAN O-3	Section 4.5, Line 2 & 3 (OPG)	Move Lines 2 and 3 to Para 4.4			Modified text		
RU-2	4.6	Before the review work is started, a number of prerequisites should be satisfied. The main prerequisite is availability of the PSR Basis Document which should be developed by operating organization and sent to the regulatory body for information and agreement as to the scope and objectives of the PSR including current national and international standards and codes to be used.	First of all, it is necessary to specify, that the PSR Basis Document is developed by the operating organization and should send to the regulatory body for information and agreement.	It was corrected			
CAN A-12	Section 4.7 (AECL)	Cut-off date is intended to “exclude” national and international standards to be used for the PSR; the wording in section 4.7 need to be clarified.	The PSR Basis document is an essential instrument that governs the conduct of the PSR and regulatory review of the PSR results. The Basis Document should identify the scope, major milestones, methodology of the PSR, the safety factors to be reviewed, and the national and international applicable standards, codes and practices, including cut-off dates for these standards and practices. The process for categorizing, prioritizing and resolving findings should be agreed upon as well.		It was considered		
SP-18	4.8	Add at the end: “ <b>Special attention should be paid to the Safety Standards by the State of origin of</b>	Those standards are better adapted to the NPP than the generic ones	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<b>the technology</b>					
SP-19	4.9	Add acronyms: “ASME” “IEEE” “IEC”	For uniformity	It was corrected			
<a href="#">GER-9</a>	4.9/6	...or, where appropriate, codes and standards of a recognized organization of a particular State (e.g. the American Society of Mechanical Engineers or the Kerntechnische Ausschuss <del>Institute of Electrical and Electronics Engineers</del> ).	It seems appropriate to not only mention organizations from the USA.	It was reflected			
CAN A-11	Section 4.10 (AECL)	“4.10. The practices of international organizations, such as the good practices of World Association of Nuclear Operators (WANO) and IAEA, could also be relevant and should be taken into account as part of the planned improvements, where applicable.. “	Please consider the text highlighted in red to clarify how good practices can be used.	It was corrected			
SP-20	4.10	Add at the end: <b>as well as the information generated by Owners Groups</b>	This information is specific for this kind of NPP	It was corrected			
UK-32	Para 4.13, 1 <sup>st</sup> sentence	Modify to read: “..and that the interface between factors <b>also</b> has to be taken into account.”	Improve grammar.	It was corrected			
UK-33	Para 4.13, 4 <sup>th</sup> sentence	Modify to read: “The outputs from the review of some safety factors can be relevant as inputs to the review of other safety factors.”	Improve clarity.	It was corrected			
US-4	4.13 / 5-6	“...need to be considered during the review of other safety factors. The outputs of certain safety factors are inputs <del>among other input information, for to</del> other safety factors. Typical lists of input...”	Adds clarity. This phrase seems to be out of place.		It was corrected		
UK-34	Para 4.14	The “agreement” of what precisely? Presumably it is the scope, timing,	There needs to be consistency with Para 2.18.				

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		codes and standards.					
CAN A-13	Section 4.14 (AECL)	“the first PSR <b>requires</b> much less effort.”			It was modified		
CAN A-14	Section 4.15 (AECL)	“the first PSR request much less efforts.” Suggest change to “the first PSR requires much less efforts.”		It was corrected			
CAN O-4	Section 4.15, Line 2 (OPG)	Replace “bases” with Basis	Spelling error	It was corrected.			
SP-21	4.15	Add at the end “ <b>PSR requires as well much less effort if the NPP has in progress independent programs for updating and guaranty the safety (i.e., PSSA, Ageing...) followed and continuously checked by the Regulatory Body to evaluate their effectiveness.</b>	Is a clarification to this point.	It was corrected			
UK-35	Para 4.15, 1 <sup>st</sup> sentence	Replace “FSAR” with “Final Safety Analysis Report (FSAR)”	The term FSAR needs to be defined.	It was corrected			
UK-36	Para 4.15, 2 <sup>nd</sup> sentence	Modify to read: “For a modern plant, constructed and put into operation with an up-to-date safety analysis and effective configuration control, the effort committed for the first PSR may be less than experienced on NPPs that require the recovery of the design basis.”	Reworded for clarity.  As an alternative, look for simplifying using the text from Para 4.19.	It was corrected			
US-5	4.15 / 5	“...management and safety analysis, the first PSR <del>request</del> <b>requires</b> much less efforts.”	Adds clarity. The term request is not appropriate.	It was corrected			
Bel-1	§ 4.16	TO ADD “In some countries, previous performed PSRs could have been more limited in the scope, studying some specific improvements and solving some known issues, but without	Belgian situation	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		making a detailed assessment of the safety factors as presented in that safety guide. In that case, the work reduction is rather limited”.					
CAN O-5	Section 4.19, Line 6 (OPG)	Last sentence is a repeat of 4.15 move last sentence to 4.15	Last sentence is a repeat of 4.15	It was corrected			
UK-37	Para 4.21	The term “technical database” needs to be defined, or replaced with a better phrase.	The meaning of this paragraph is unclear.				Editor will review it
ENISS-6	4.22	<del>Each</del> <b>The</b> safety factors should be reviewed for all operating conditions (including accident conditions) <b>if applicable</b> and be assessed against current national and applicable international safety standards and practices as identified in the PSR Basis Document. The review method should be systematic.	In section 5 the review for all operating conditions is not required for all 14 safety factors and not for all of the safety factors it makes sense to do this (e.g. ageing, the Safety factors treating management).	It was corrected			
CAN O-21	4.22 Page 17 (OPG)	English is very awkward in the section. (4.22)		It was improved			Editor will review it
CAN A-15	Section 4.23 & 5.8 (AECL)	what is the rationale for clauses 4.23 and 5.8? What are the metrics/bases for assessing “completeness” of Safety Factor Report references?					
SP-22	4.24	Change the last line: ...should “ <b>study prompt action, and then immediately propose to the end Regulatory Body</b> ” and not...	The new actions should be agreed with the regulatory Body”	It was corrected			
ENISS-7	4.24	<del>Findings from the safety factor reviews should be evaluated and the timing of proposed safety improvements determined. The proposed plan should recognise the need to implement safety improvements as soon as reasonable and practicable in accordance with the global assessment (Section 6). In cases</del>	All recommendations regarding deviations and findings should be implemented in chapter 6 global assessment		It was corrected		



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>where there is an immediate and significant risk to safety, the operating organization should take prompt action, and not wait until the PSR process concludes.</del>					
ENISS-8	4.25	<del>The level of plant safety should be determined by a global assessment reflecting, among other things, the combined effects of all safety factors. It is possible that a deviation in one safety factor can be compensated for by strength in another safety factor</del>	All recommendations regarding deviations and findings should be implemented in chapter 6 global assessment		It was corrected		
<u>GER-10</u>	4.25	<del>The level of plant safety should be determined by a global assessment reflecting, among other things, the combined effects of all safety factors. It is possible that a deviation in one safety factor can be compensated for by strength in another safety factor.</del>	Paragraph identical to 5.4, therefore delete here.	It was corrected			
CAN O-6	Section 4.26 (OPG)	Remove 4.26 or combine in 4.15	Repeated Info.		It was considered.		
UK-38	Para 4.27, 2 <sup>nd</sup> sentence	Modify to read: “The source of all information should be referenced appropriately and an explanation be provided of how each reference has been used.”	Improve clarity.	It was corrected			
CAN O-7	Section 4.29 (OPG)	“A global assessment of any short comings that cannot be reasonably and practicably corrected should be performed. The global assessment should take into account all corrective actions and/or safety improvements and strengths of the Nuclear power plant.”	Fix Grammar	It was corrected			
CAN A-15	Section 4.29 (AECL)	“A global assessment of any shortcomings that cannot be reasonably and practicably corrected is made,		It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		account being taken of all the corrective actions and/or safety improvements and the strengths of the nuclear power plant.” The above sentence need to be revised as the verb is missing. Suggest “Preparation of a Global Assessment Report to discuss any shortcoming...” Or “List any shortcomings that...”					
UK-39	Para 4.29, 1 <sup>st</sup> sentence	Modify to read: ”A global assessment should evaluate the position achieved at the end of the PSR process, and justify the case for any shortcomings that cannot be reasonably and practicably corrected. The global assessment can take account of all the corrective actions and/or safety improvements and the strengths of the nuclear power plant.”	Reworded for clarity.	It was corrected			
UK-40	Para 4.29, 3 <sup>rd</sup> sentence	Modify to read: “Section 6 on Global Assessment provides further discussion on the content of the global assessment, and on the prioritization and categorisation of safety improvements.”	Reworded for clarity.	It was corrected			
US-6	4.29 / 1-2	“A global assessment of any shortcomings that cannot be reasonably and practicably corrected <del>is</del> <u>should be made.</u> <del>The global assessment should take into account being taken of</del> all the corrective actions and/or safety improvements...”	Adds clarity. The original write-up is confusing.	It was corrected			
<u>GER-11</u>	4.29/5-6	... Section 6 on Global assessment <del>in</del> and Section 8, on PSR reviews, discuss in detail about safety improvements, prioritization, ranking, etc.	Typing errors	It was corrected			
ARM 5	Para 4.29	A global assessment of any	If any shortcomings cannot be		Modified text		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		shortcomings that cannot be reasonably and practicably corrected is made, account being taken of all the compensating measures and/or safety improvements and the strengths of the nuclear power plant.	reasonably and practicably corrected it means that corrective actions can not be taken, so they should be compensated.		(other comments)		
UK-41	Para 4.30	<p>Modify to read:</p> <p>“The results of the review should be documented in reports to be produced by the operating organisation. The structure of documentation will be described in the PSR Basis Document, along with the programme for submission to the regulatory body. An example structure may be:</p> <ul style="list-style-type: none"> <li>▪ Safety Factor Report;</li> <li>▪ Global assessment report documenting the results of the global assessment; and</li> <li>▪ PSR Final Report including the proposed safety improvements and integrated implementation plan and a summary of the safety factors and global assessment reports.</li> </ul> <p>The contents of these documents within this structure are described in Appendix B.</p>	Reworded for clarity.	It was corrected			
JAP 3	4.30/2	The results of the review should be documented in reports to be produced by the operating organization and, <u>if required</u> , submitted to the regulatory body:	See General comment 1.	It was corrected			
		<b>Section 5</b>					
UK-42	Section 5 Safety Factors in PSR	Add the appropriate Safety Factor numbers to the relevant sub-headings,	This would allow easier cross-referencing and therefore improve	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		for example Safety Factor 1 - Plant Design.	clarity.				
CAN O-8	Section 5.1 (OPG)	Either delete section or change to: "important aspects of the safety of an operational Nuclear power plant that are addressed in a PSR are defined as safety factors.	Safety factors are defined in section 1.6		Modified text		
UK-43	Para 5.1	This paragraph needs rephrasing.	The current wording contradicts the flexibility allowed for in Paras 4.4 and 4.5; our list of safety factors may not represent the totality of concerns in every instance.  If these paragraphs are retained, they should both be numbered for consistency with the style adopted throughout the document.		It was considered		
ENISS-9	5.1.	All important aspects of the safety of an operational nuclear power plant that are addressed in a PSR are defined as safety factors and these are described in this Section. <del>The general methodology which is common for all safety factors is described in Section 4. The general methodology should lead to the adoption of a common plan of presentation of recommendations for 14 PSR safety factors.</del> The 14 PSR safety factors, their individual objective, <del>scope and tasks</del> and also the specific methodology are defined and explained in this section. Information on <u>scope and tasks</u> , relevant inputs, outputs, interfaces, and references for each safety factor are	Delete because it is a repetition.  To be inline with the general recommendation  To be consistent with the		Partially accepted It was corrected		Without the scope & tasks the presentation of the review of SFs would be not complete

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		given in Appendix A. The content of the typical safety factor report is listed in Appendix B.	following paragraph 5.1a				
ENISS-10	5.1 a	<u>The method of the review should be systematic independent from the ongoing oversight process by the regulator.</u> <u>For some requirements and standards a high level or programmatic review could be performed but should be addressed in the PSR basis document</u>	See our comment to 5.20; this is a general recommendation and should not only be addressed in the safety factor “Plant Design”.	It was corrected	New 5.2 para		
ARM 6.	Para 5.2	We propose to remove the second sentence.	It repeats the second sentence in Para 4.4		Modified text (other comments)		
ENISS-11	5.2.	<del>For a comprehensive periodic safety review, this safety guide recommends 14 safety factors (listed in Section 2) that should be applied to activities covered by the operating licence for a particular nuclear facility. However, the number of safety factors may vary according to the specific needs of the operating organization and the particulars of the nuclear facility.</del>	Delete; this safety guide is restricted to nuclear power plants and not to other nuclear facilities.		It was considered , text was modified (other comments)		
SP-23	5.2	Add at the end: “ <b>and with the agreement of the Regulatory Body</b> ”	If the PSR considers less security factors, that should be agreed with the Regulatory Body.	It was corrected			
ARM 7	Para 5.3	We propose to remove the third sentence.	It repeats the meaning of the second sentence in Para 4.5		Modified text (other comments)		
CAN A-24	Section 5.3 (AECL)	A number of safety factors are related to many other safety factors. The rationale for not having Radiation Protection as a separate Safety Factor is weak. Suggest that Radiation Protection be listed as a separate safety factor in			Modified text (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		Clause 2.13.					
CAN A-25	Section 5.3 (AECL)	Suggest change to " 5.3. Radiological protection is not regarded as a separate safety factor since it is related to or assessed in a number of safety factors.				Modified text (other comments)	
ARM 8	Para 5.4	We propose to remove the second sentence	It repeats the second sentence in Para 4.25	A			
ENISS-12	5.4.	<del>The level of plant safety should be determined by a global assessment (Section 6) reflecting, among other things, the combined effects of all safety factors. It is possible that a deviation in one safety factor can be compensated for by strength in another safety factor.</del>	Already covered by different recommendation in chapter 6.	A	It was considered , text was modified (other comments)		
UK-44	Paras 5.4 and 5.5	Delete these paragraphs.	These repeat previous paragraphs without adding any value.	It was corrected			
<u>GER-12</u>	5.4/3	<del>It is possible that a deviation in one safety factor can be compensated for by strength in another safety factor.</del> A deviation concerning a specific subject in a safety factor can be compensated by strength of this subject in another safety factor.	It is beneficial to deal with the interaction between different safety factors, however this text does not state explicitly in which cases a compensation for deviations of an safety factor can be applied, i.e. only the same subject and not uncorrelated.		It was considered (other comments)		
<u>GER-13</u>	5.5/4	Findings from individual safety factor assessments may indicate that plant safety is acceptable, however their interaction with other safety factors related to a specific subject should be reviewed for acceptability in the global assessment.			It was considered (other comments)		
ENISS-13	5.5.	<del>Findings from individual safety factor assessments may indicate that plant safety is acceptable, however their combined effect should be reviewed for</del>	This paragraph should be added in chapter 6.		It was considered , text was modified		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>acceptability in the global assessment.</del>			(other comments)		
UK-45	Para 5.6, 1 <sup>st</sup> sentence	This sentence needs re-phrasing.	The current wording seems to be mixing a number of concepts in a confusing manner. It needs to be re-written to improve clarity.		It was considered		
UK-46	Para 5.6, 2 <sup>nd</sup> sentence	Replace “key” with “important to safety” to read: “Age related degradation mechanisms that could lead to failures of those SSCs of the nuclear installation <b>important to safety</b> and that ....”	Improve clarity. We should be concerned about any such failures, not just to key SSCs.	It was corrected			
UK-47	Para 5.6, 2 <sup>nd</sup> sentence	Replace “and” with “or” to read: “...or that could potentially limit...”	The meaning of the current wording is unintentionally restrictive, and should be modified as suggested.	It was corrected			
SP-24	5.7	Add: .. depend on the “the quality”, availability...	A lot of bad information is not useful	It was corrected			
ARM 9	Para 5.8	We propose to remove the second sentence.	It repeats the sentence in Para 4.23			Rejected	Important to keep
SP-25	5.9	Improve the writing of this point	It is not clear and understandable only with difficulties.				Editor will correct it
CAN O-16	Section 5.9, Line 1 (OPG)	“...could provide input to...”	Grammar				Editor will correct it
ENISS-14	5.9.	<del>The outputs from the review of safety factor (9) — Use of experience from other plants and research findings — could, potentially, input to the reviews of all the other safety factors except that of safety performance. Therefore, the majority of the tasks in this review should be addressed early in the PSR for input into the other safety factor reviews.</del>	Covered in the matrix in Appendix A.1.			Rejected	It is an important recommendation to have here Editor will correct it
CAN A-16	Section 5.10	Delete this clause, it is overly			It was		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
	(AECL)	prescriptive. What requirements/need is being satisfied by establishing a ranking process prior to the safety factor review?			considered (other comments)		
ENISS-15	5.10.	<del>A method to assess, categorize, rank and prioritize findings should be established prior to the safety factor review.</del>	It is covered by 6.6; it is the same text.		It was considered, text was modified (other comments)		Other comments
SP-26	5.10	Remove this point	It's a repetition of the point 4.7	It was corrected			
ENISS-16	5.11.	<del>The safety factor review should identify strengths and deviations, (see para. 2.15.). If there are no changes in Safety Standards or in the plant a statement should be made in the report.</del>	This should be addressed in chapter 6		It was considered , text was modified (other comments)		
SP-27	5.11	Separate this point in two different paragraphs or points	The second part is absolutely different from the first one.		It was considered (other comments)		
UK-48	Para 5.11	Reconsider whether this paragraph is needed.	It is not clear what value this paragraph adds to the document.		It was considered		
ARM 10	Para 5.12 (the first doc)	Deviations for which no improvement is necessary no improvement can be identified or no improvements can be reasonably and practicably done, or	In some cases improvements are needed and even identified but reasonably and practicably it cannot be done.			Rejected	Other comments
ENISS-17	5.12.	<del>Deviations can be categorized as follows:  <ul style="list-style-type: none"> <li>• deviations for which no improvement is necessary or no improvement can be identified, or</li> <li>• deviations for which safety improvements are necessary.</li> </ul> </del>	This should be addressed in chapter 6		It was corrected It was considered , text was modified (other comments)		
CAN B-5	Section 5.13 (BPLP)	In "Deviations for which no improvement is necessary or no improvement can be identified should be justified by the operating organization and approved by the	In section 4.28 on IIP, the guide allows for agreement or acceptance of the IIP. So, do not see why the case for not making the change cannot be treated the	It was corrected	It was considered (other comments)		



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		regulatory body.”; the word “approved” should be changed to “accepted” or “agreed to”.	same way. In general, our experience in general is that the CNSC would accept our position on individual submissions. They approve the overall position through licence approval. Note that Figures 3 and 4 do not call for regulator’s approval.				
ENISS-18	5.13.	<del>Deviations for which no improvement is necessary or no improvement can be identified should be justified by the operating organization and approved by the regulatory body.</del>	This should be addressed in chapter 6		It was considered , text was modified (other comments)		
UK-49	Para 5.13	Modify to read: “Deviations for which no improvement is necessary, or no improvement can be identified, should be justified by the operating organisation <b>to make this visible to the regulatory body consistent with national legal requirements or similar.</b> ”	It is not the practice in all Member States for regulators to “approve” such a justification.	It was corrected			
<u>GER-14</u>	5.14	Deviations which need safety improvements, including updating/or extending plant documentation, including operating procedures, should be ranked (by safety significance) and prioritized. The approach for the ranking and prioritization of safety improvements can be based on deterministic analyses, probabilistic safety assessment, engineering judgement, <del>cost benefit analysis.</del>	The utilization of cost benefit analysis should not be used for necessary safety improvements.		It was considered (other comments)		
SP-28	5.14	Add at the end: “ <b>etc.</b> ”	Other reason for delay some specific solutions is that this point is at present under research or its solution it’s waiting for Regulatory endorsement.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-50	Para 5.14	Replace “ranked” with categorised”, and similarly “ranking” with “categorising”	Ranking adds little value; categorising does.  If these paragraphs are retained, they should both be numbered for consistency with the style adopted throughout the document.	It was corrected			
ENISS-19	5.14.	<del>Deviations which need safety improvements, including updating or extending plant documentation, including operating procedures, should be ranked (by safety significance) and prioritized. The approach for the ranking and prioritization of safety improvements can be based on deterministic analyses, probabilistic safety assessment, engineering judgement, cost benefit analysis. These safety improvements, along with the safety improvements resulting from the global assessment, should be included in the integrated implementation plan.</del>	This should be addressed in chapter 6		It was considered and corrected (with other comments)		
JAP 11	5.14	The approach for the ranking and prioritization of safety improvements can be based on deterministic analyses, probabilistic safety assessment, engineering judgment, <del>cost benefit analysis.</del>	Present sentence may lead to the misunderstanding that the cost is prior to the safety. Safety should be obtained as much as reasonably achievable.		It was considered (other comments)		
ENISS-20	5.15.	<del>As it is stated in paragraph 4.24, if the safety factor review team identifies a finding that poses an immediate significant risk to health and safety to workers or the public, implementation should not await the completion of the PSR but the operating organization should take a prompt corrective action.</del>	Delete; it is a repetition of 4.24.		It was considered and corrected (with other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
SP-29	5.15	Add: .... Immediate “and/or” significant ...health “and/or ...organization should “study and submit to agreement of Regulatory Body”	Similar to the point 5.2	It was corrected			
CAN A-20	Section 5.16 (AECL)	It is too prescriptive to indicate that interrelated findings must be discussed immediately with other review teams. A planned manner of discussing inter-related findings between safety factor reports would be a more effective and efficient approach.				Rejected	It is important recommendation - not to lose the time
ENISS-21	5.16.	<del>Findings which have interface with other safety factor should be discussed immediately with the related review team.</del>	This should also be added in chapter 6.			Rejected	It is important recommendation - not to lose the time
ENISS-22	5.17.	<del>Findings identified as a result of the safety factors review should be documented in a safety factors report.</del>	This is already addressed in Appendix B.2.			Rejected	It is important recommendation
UKR-2	Addition to para. 5.18	During periodic safety reviews, safety-significant plant systems and components are directly and completely tested for operability and compliance with design characteristics, the testing results being documented. If direct and/or complete testing is impossible, indirect and/or practical testing is performed. Sufficiency of the indirect and/or partial	Determine types of tests on safety- significant systems and components.	It was corrected	It was partially considered (other comments)		
ARM 11	Para 5.19	The objective of the review of this safety factor is to determine the adequacy of the design of the NPP and its documentation in an assessment against current national, international standards, requirements and practices	In this Para should be written objective for the review not for the safety factor (please see other objectives).	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
CAN A-21	Section 5.20, Last Bullet (AECL)	(editorial), “(current list of events to...).		It was corrected			
CAN B-6	Section 5.20 (BPLP)		Need to specify the perspective of the review of the safety analysis report or the licensing basis documents.		It was considered (other comments)		
CAN B-7	Section 5.20, 3rd & 5th Bullets (BPLP)		The 3rd bullet implies that the PSR's premise is that the present plant design complies with the previous standards, the ones to which it was built and modified to the time of the PSR. So, not clear why the need for review of compliance with plant design spec?			Modified text (other comments)	
FIN-8	5.20	- engineered barriers for preventing the dispersion of radioactive materials (integrity of fuel, cooling circuit and containment building)	Add to the list after the application of defense in depth levels.	It was corrected			
SP-30	5.20 Last paragraph	Add: ...they have appropriated “design” characteristics	The actual characteristics are studied in other safety factor.	It was corrected			
SP-31	5.20	Add at the end: “ <b>This review will have an specific scope depending on the changes in licensing bases standards.</b> ”	It is not necessary to review the SSC without changes, and it is an unnecessary burden	It was corrected			
ENISS-23	Before 5.20	<del>Scope and tasks</del>	Delete to be in line with the general comment.			Rejected	(other MSs’ comments) Important to keep the logic See ENISS 9
ENISS-24a	5.20.	<del>The review of the NPP (including site characteristics) should include the following tasks:</del> ● Review the list of SSCs important	This should be deleted because it is a repetition of table A.2. Only the recommendation “Review compliance with plant design specifications” is not a repetition			Rejected	(other MSs’ comments) Important to keep the logic

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<p><del>to safety for completeness and adequacy</del></p> <ul style="list-style-type: none"> <li>● <del>Review appropriate characteristics to meet the requirements for plant safety and performance for all plant conditions and applicable operating period, including:—</del> <ul style="list-style-type: none"> <li>○ <del>the prevention and mitigation of events (faults and hazards) that could jeopardize safety,</del></li> <li>○ <del>the application of defence in depth levels (reference documents required),</del></li> <li>○ <del>safety requirements (e.g. dependability, robustness, and capacity), and</del></li> <li>○ <del>design codes and standards.</del></li> <li>○ <del>Identify differences between the previous standards (fulfilled by the present plant design) and current nuclear safety and design standards</del></li> </ul> </li> <li>● <del>Review adequacy of design basis.</del></li> <li>● <del>Review compliance with plant design specifications.</del></li> <li>● <del>Review the safety analysis report or licensing basis documents (inclusion of all plant modifications and their cumulative effects and update the site characterization).</del></li> </ul>	<p>and should be added into table A.2.</p> <p>To be in line with our general comment.</p>				See ENISS 9
ENISS 24b	5.20 last bullet	<ul style="list-style-type: none"> <li>● <del>Review plant SSCs important to safety to ensure that they have appropriate characteristics and are combined and segregated in</del></li> </ul>				Rejected	(other MSs' comments) Important to keep the logic

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>such a way as to meet the requirements for plant safety and performance, including the prevention and mitigation of events (current list of event to be considered in design and severe accidents) that could jeopardize safety</del>					See ENISS 9
UK-51	Para 5.20, 2 <sup>nd</sup> bullet, 2 <sup>nd</sup> point		The meaning of “reference document required” is unclear. This phrase should be explained to improve clarity.		It will be considered		
UK-52	Para 5.20, 4 <sup>th</sup> bullet	Modify to read: “Review of the adequacy of the design basis <b>documentation.</b> ”	The word “documentation” has been omitted. This was not intended as this was a requirement from the original guide and without the word would be a duplication of the other bullet points.	It was corrected			
UK-53	Para 5.20	Consider adding a new bullet point to read: “Review the spent fuel storage strategy and carry out an engineering assessment of the condition of the storage facilities, the records management and the inspection regimes being used.”	For completeness.	It was corrected			
FIN-9	5.21	The recommendations for radiation protection aspects of design are in Ref. [11].	Modify the last sentence. If separate area for rad. prot. is added then this will be reviewed there. Ref. [12] is not giving recommendations on the plant design.				
ENISS-25	5.21.	<del>IAEA safety requirements for design, site or design related aspects are given in Ref. [3], [5], [10], and recommendations related to the safety</del>	Removed because it is a repetition of table A.2. To be in line with our general comment.		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>analysis report are given in Ref. [9]. The recommendations for design of radiation protection systems are in Refs. [11] and [12].</del>					
CAN B-8	Section 5.21 (BPLP)		Not all standards & requirements need to have a clause-by-clause review. For some, it is more appropriate to perform a high-level or programmatic review.		It was considered (other comments)		
CAN A-22	Section 5.22 (AECL)	Suggest change to “ For some standards, a high level or programmatic review could be performed and agreed to by the regulatory body.”			It was considered		
CAN A-23	Section 5.22, Last Line (AECL)	(editorial), some requirements and standards.....performed as agreed...			It was considered (other comments)		
CAN B-9	Section 5.22, 1st Sentence (BPLP)		In light of section 5.20, 3rd bullet begs the question if it'd not be sufficient to do a review of only those clauses that are different (between the modern and previous standards). If the answer is no, then what is the purpose of identifying the different clauses?		It was considered (other comments)		
ENISS-26	5.22.	<del>The method of the review should be systematic by performing a clause-by-clause review of national requirements and standards for compliance where applicable.</del> Methods to consider include to: <ul style="list-style-type: none"> <li>subdivide the review into topics by plant systems, such as reactor core, reactor coolant system, containment system, instrumentation and control</li> </ul>	Deleted because it is applied in 4.9 and 5.1a		It was considered (with other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<p>systems, electrical power systems and auxiliary systems, or</p> <ul style="list-style-type: none"> <li>perform a comparison of standards and requirements to identify changes between versions and the effect on plant design.</li> </ul> <p><del>For some requirement and standard a high level or programmatic review could be performed by the regulatory body.</del></p>	This is moved into 5.1a because it is a general requirement for all safety factors.				
UK-54	Para 5.22, last sentence	Modify to read: “In some cases, the national requirements and standards may be best addressed by a high-level or programmatic review. If this approach is to be adopted, the PSR Basis Document needs to clearly indicate this intention.”	Not all regulators have the specific power to agree this review, e.g. UK.	It was corrected			
SP-32	5.22 First paragraph	Add: ...of national “ <b>and international</b> ” standards		It was corrected			
Hungary-1	Page 22/23 5.23./last	The list should indicate the differences in plant design as assessed against current safety standards (including relevant design codes) and the actual safety significance of SCCs included.	The experts should identify and determine during the development of the list. The list only indicate the results of the identification and determination.	It was corrected			
SP-33	5.23	Separate this point in two different paragraphs or points	The last sentence is absolutely different from the first one	It was corrected			
ENISS-27	5.23.	<del>The review of the plant design should confirm that there is an adequate list of SCCs important to safety (the current version of the safety analysis report may be helpful in performing this activity). If a list of SCCs is not available, the operating organization</del>	Deleted because it is part of table A.2.		It was considered (other comments)		



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>should develop one for the PSR. The list should identify the differences in plant design as assessed against current safety standards (including relevant design codes) and determine their safety significance.</del>					
FIN-10	5.24	Adequacy of the application of principles, such as redundancy, separation and diversity, ensuring the plant safety should be reviewed. The independency of defense in depth levels should also be reviewed.	Add the text to broaden the concept of defense in depth review.		It was considered (other comments)		
FIN-11	5.24 end	Application of the structural defense in depth concept in the design (review of the integrity of fuel, cooling circuit and containment building) should be considered.	Add new recommendation after 5.24 covering also structural defense in depth concept.		It was considered (other comments)		
ENISS-28	5.24.	<del>Application of the defence in depth concept in the design (review of the safety function of SSCs to prevent or mitigate the identified events) should be considered.</del>	Deleted because it is part of table A.2.		It was considered (other comments)		
ENISS-29	5.26.	<del>A PSR should confirm that significant documentation relating to the original/reconstituted design basis has been obtained, securely stored and updated to reflect all the modifications made to the plant since its commissioning. Recommendations on meeting the requirements of Ref. [13] for document control are presented in Ref. [14].</del>	Deleted because it is part of table A.2.			Rejected	Important to have here for this SF not only in the ANNEX
UK-55	Para 5.27	Modify to read: “A design re-evaluation should be undertaken:	Modify structure to improve clarity.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<ul style="list-style-type: none"> <li>▪ If design information is inadequate and there is uncertainty over the adequacy of the SSC to carry out its safety function; <i>or</i>,</li> <li>▪ If there is a potential for a component to result in an increased risk for the hazard, eg steam release or internal flooding.”</li> </ul>					
ENISS-30	5.27.	Where design information is inadequate and there is uncertainty over the adequacy of the SSC <u>important to safety</u> to carry out its safety function or if there is a potential for component to lead an increased risk of a hazard (e.g. steam release or internal flooding), a design re-evaluation should be undertaken.	For clarity		It was considered (other comments)		
ENISS-31	Before 5.28	ACTUAL CONDITION OF SYSTEMS, STRUCTURES AND COMPONENTS <u>IMPORTANT TO SAFETY</u>	See article 5.29	Accepted			In PSR, all components both safety and safety related taken in consideration
UK-56	Para 5.28	Modify to read: “The actual condition of SSCs within the nuclear power plant is an important factor in any assessment of the adequacy of SSCs to meet design requirements. Hence, it is important to document thoroughly the condition of a SSC. Additionally, knowledge of any existing or anticipated obsolescence of plant systems and equipment should also be taken into account.”	Reword to improve clarity.	It was corrected			
Slovakia 1	5.29	The objective of the review is to determine the actual condition of SCCs	PSR should prove capability of SCCs. The term „adequate” used		It was considered (other		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		important to safety and whether it is <b>capable</b> for them to meet their design requirements until at least the next PSR...	in DS426 Draft 3 does not mediate needed strictness of requirements for SSCs important to safety.		comments)		
Slovakia 2	5.30	<ul style="list-style-type: none"> <li>Plant programmes required to support the actual condition of SSCs,</li> </ul>	According to DS426 Draft 3, para 3.7 this text to be added as next bullet in para 5.29.	It was corrected			
UK-57	Para 5.30, 5 <sup>th</sup> and 6 <sup>th</sup> bullets	<p>The word “significant” should be used as follows:</p> <ul style="list-style-type: none"> <li><b>Significant</b> findings of tests that demonstrate the functional capability,</li> <li>Results of <b>significant</b> inspections,</li> </ul>	To restrict the size of the review and recognise that such matters should be reviewed as part of normal business.	It was corrected			
UK-58	Para 5.30	<p>Consider adding a new bullet point to read:</p> <p>“The condition and operation of the spent fuel storage facilities and their effects upon the spent fuel storage strategy for the NPP,”</p>	Omission.	It was corrected			
UK-59	Para 5.30	<p>Consider adding a new bullet point to read:</p> <p>“Dependency on obsolescent equipment for which no direct substitute is available,”</p>	Omission. In some instances a “direct swap-out” may not be possible.	It was corrected			
UK-60	Para 5.30	<p>Consider adding a new bullet point to read:</p> <p>“Dependency on essential services/supplies external to the facility under consideration,”</p>	For completeness. Dependencies on external systems, such as gas, water and electrical systems, which could directly affect nuclear safety of the plant.	It was corrected			
UK-61	Para 5.31	Modify to include “ <b>modification history.</b> ”	Modifications (real or inadvertent) can be significant to the actual condition of the plant.	It was corrected			
UK-62	Para 5.32		It is not clear what “these” refers to in the statement “ <i>these should</i>	A			It will be considered with

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			<i>be derived at an early stage of the PSR</i> ". Reword to improve clarity.				the editor
CAN O-10	Section 5.37, Line 3 (OPG)	Add: "and" before "safety"		It was corrected			
FIN-12	5.38	The qualification should be followed and maintained during the plant operation.	Add text to the end to emphasize that the qualification program is a continuous effort not just performed before the equipment installation.	It was corrected.			
FIN-13	5.39	...have been properly qualified (including for environmental conditions) and that this qualification is being followed and maintained through adequate data records, maintenance, inspection and testing during the period until at least the next PSR.	Modify the text to emphasize also proper documentation. Separation of equipment is a more general defense in depth issue covered in 5.24 (see also comment no. 10) and not qualification issue.	It was corrected			
UK-63	Para 5.39		This is a long sentence. Consider rewording (and breaking it down) to improve readability.		It will be considered		
CAN O-11	Section 5.39, Line 2 (OPG)	Add: "Safety and" before "defence" and delete "each" and "level"			It was considered (other comments)		
Slovakia 3	5.39	The objective of the review is to determine whether the plant equipment important to safety have been properly qualified and that this qualification is being adequately maintained, inspected and tested during the period until at least the next PSR.	Wording in DS426 Draft 3 is too complicated. The qualified equipment naturally has "roles/functions" and its qualification is specially done "for environmental conditions", including "separation". Suggested term „properly qualified" covers also requirement- „important to each defence in depth level".		It was considered (other comments)		
CAN O-12	Section 5.40, Line 3 (OPG)	Add: "their safety function" before "for"		It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
Egy-2	Para 5.40 Page 25 The last line in the page	Thereof	There of may be changed to thereof ( space is to be deleted )	It was corrected			
FIN-14	5.40	The review of this safety factor should include the review of the effectiveness of an equipment qualification program which should ensure that the equipments... prevailing (under normal and where appropriate, accident conditions) with account taken of the ageing degradation of the equipment that occurs during service and possible changes in the environmental conditions.	Modify the text to clarify that equipment qualification should be a continuous program (similar to ageing management and also as described in [17]). Adequacy of equipment qualification is not reviewed only in every ten years. The added text in the end is the reminder that the environmental conditions can also change during plant operation due to e.g. plant modifications.	It was corrected			
SP-34	Point 5.40	Add at the end of the parenthesis: “etc.”	If the list in complete it is not necessary to put “e.g”., if it is not complete it muss state “etc” or”....”	It was corrected			
ARM 12	Para 5.41	We propose to remove the last sentence.	It should be part of the requirements (for example in NS-R-2). It is not requirement for review.		It was modified		
CAN O-13	Section 5.41, Line 1 (OPG)	“...important to safety should be formalized using...”	Grammar		It was considered (other comments)		
UK-64	Para 5.41, 1 <sup>st</sup> sentence	Modify to read: “Qualification of plant equipment important to safety <b>should be</b> formalised using a process....”	The meaning is unclear because the verb is missing. Modify to improve clarity.	It was corrected			
UK-65	Para 5.42		This is a very long sentence! Consider splitting it up, possibly by using bullet points, to improve readability.		It will be considered		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
FIN-15	5.44	- Monitoring of actual environmental conditions and identification of 'hot spots' of high activity or temperature.	Add "or temperature".	It was corrected			
SP-35	5.44	Change the writing of this point	Its not necessary to monitor "hot spots" but to check that the SSC are qualified for those conditions				
CAN B-10	Section 5.45 (AECL)	"availability status of equipment serving the safety functions to be considered in safety analyses"; Suggest that the above bullet be deleted. Do not understand the relevance of the bullet to EQ.		It was corrected			
CAN B-11	Section 5.45, 2nd Sentence (BPLP)	See comment on Sections 5.20 and 5.22			It was corrected		
UK-66	Para 5.45, 2 <sup>nd</sup> sentence	Modify to read: "As a minimum, the review should confirm that the related equipment qualification requirements remain valid. This review should also include assessment of the following:..."	Reword to improve clarity.	It was corrected			
FIN-16	5.46	...(a) whether assurance of the required equipment performance capability was initially provided, (b) whether equipment qualification specification is still valid (e.g. initial assumptions on lifetime and environmental conditions), and (c) whether equipment performance has been preserved by...	Add (b) to include the validity check of the equipment qualification. (c) is enough for the equipment used only during normal operation but equipment used in accident conditions needs also the validity check of the original qualification assumptions.	It was corrected			
US-7	5.46 / 4	"...maintenance, <u>condition monitoring</u> , testing and calibration and that it has been clearly documented."	Completeness of paragraph.	It was corrected			
US-8	5.47	It should be noted that a review related to the equipment qualification, as	Paragraph refers to itself. Should be 5.46. Additional text			Rejected	Modified 5.46

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		described in paragraph 5.46, may not be necessary if the component has no significant age-related, environmental, or operation cycle- related degradation for the duration of the operational life.	provides more clarity. Recommend deleting remainder of paragraph.				
Slovakia 4	5.49	The objective of the review is to determine whether there are adequate and effective ageing management programmes established for all SSCs important to safety so that required safety functions could be maintained for a designed life time or for a long term operation.	Clarity.	It was corrected			
UK-67	Para 5.49		The main objective of the ageing review should be to determine whether degeneration might render some aspect of the NPP unsafe before the next PSR. The present objective specified in this paragraph is secondary to this.		It will be considered		
CAN O-14	Section 5.51, Line 5 (OPG)	Remove “ <del>Organization</del> ”	Part of Safety Factor #10		It was considered (other comments)		
ENISS-32	5.51.	The following ageing management programmatic aspects should be evaluated: <ul style="list-style-type: none"> <li>• The Ageing management programme for timely detection and mitigation of ageing mechanisms and/or ageing effects,</li> <li>• Effectiveness of operational and maintenance policies and/or procedures in managing ageing of replaceable components.</li> <li>• Evaluation and documentation of potential ageing degradation that</li> </ul>			It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<p>may affect the safety functions of SSCs.</p> <ul style="list-style-type: none"> <li>• <del>Organization, staffing and resources.</del></li> <li>• Performance indicators</li> <li>• Record keeping</li> </ul>	<p>This bullet should be deleted because in this safety factor, organizational aspects are not addressed. The description of the criteria on ageing is only addressing technical aspects. The ageing of these non-technical issues is completely covered in the part organization, management system and safety culture (5.119 to 5.128).</p>				
UK-68	Para 5.51, 1 <sup>st</sup> sentence	<p>Modify to read: “The following aspects of the ageing management programme should be evaluated:”</p>	<p>Reword to improve clarity.</p>	<p>It was corrected</p>			
UK-69	Para 5.52	<p>Consider adding a new bullet point to read: “Establish the effects of ageing on the long term safety features of the NPP plant beyond shutdown, for example the spent fuel storage facility.”</p>	<p>Omission.</p>	<p>It was corrected</p>			
UK-70	Para 5.53, 1 <sup>st</sup> sentence	<p>Modify to read: “... and prediction of ageing management <b>that might affect the safety functions and lifetimes of SSCs</b>, and identifies appropriate...”</p>	<p>Modify to improve clarity.</p>	<p>It was corrected</p>			
JAP E1	5.55/6 <sup>th</sup> bullet	<ul style="list-style-type: none"> <li>• The <del>prognosis for the period, until the next PSR is prognosticated.</del></li> </ul>	<p>Clarification</p>	<p>It was corrected</p>			(5.54/6 bullet)
RU-3	5.55, second marker	<p>The comprehensive ageing management programme covers SSCs important to safety,</p>	<p>According to definitions of types of the plant equipment in IAEA Glossary, failure of the non-safety related items cannot inhibit or adversely affect a safety function. By this reason lines 2 and 3 of the second marker</p>	<p>It was corrected</p>			



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			should be excluded.				
JAP E1	5.55/6 <sup>th</sup> bullet	• The <del>prognosis for the period, until the next PSR is prognosticated.</del>	Clarification	It was corrected			
RU-4	5.57, the fourth marker	use of modern validated codes;	To change edition for the account of modern codes.	It was corrected			
ARM 13	Para 5.57 (the fifth doc)	<ul style="list-style-type: none"> <li>Current knowledge in physical phenomena and deterministic methods;</li> </ul>	Not only current deterministic methods, but current knowledge in physical phenomena should be considered.		It was modified		
CAN A-26	Section 5.57 (AECL)	“actual plant design including all modifications of SSCs since the last PSR;” Suggest change to “actual plant design including all modifications of SSCs since the last update of the Safety Analysis Report or the last PSR.;		It was corrected			
CAN B-10	Section 5.58 (BPLP)	A review of the deterministic safety analysis should be conducted for each nuclear power plant, confirming the design basis for items important to safety and evaluating the plant behaviour for postulated initiating events	New analysis is not performed as part of the safety factor report. If there are deficiencies identified, then this would provide a basis for plan to resolve them, which could involve new analyses.	It was corrected			
SP-36	5.58 First sub-section	Add at the end: ... <b>when any relevant reason to do that exist P-Ej Relevant changes ageing, new applicable standards. Etc</b>	To check all the deterministic analysis has no sense and it's a time and budged consuming process.				
UKR-3	Addition to para. 5.58	Analyze functional adequacy and reliability of systems and components, safety impact of internal and external events, equipment failures, and human errors, adequacy and effectiveness of engineering and administrative measures to prevent and mitigate design-basis-and beyond-design-basis		It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		accidents.					
CAN B-11	Section 5.60 (BPLP)		The following bullet should be part of Procedures instead of Deterministic Analysis: "Evaluate if appropriate deterministic methods are used for development and validation of emergency operating procedures and accident management programme at the plant."			It was not considered	
CAN B-12	Section 5.60 (BPLP)		Not sure what is the purpose of reviewing the original safety analysis, unless it is still part of the current safety analysis basis.			It was not considered	
SP-37	5.63	Idem 5.58					
SP-38	5.64	Add at the beginning: " <b>If it is necessary to repeat the analysis</b> "	It's not always necessary to repeat all the analysis	It was corrected			
UK-71	Para 5.64, 2 <sup>nd</sup> sentence	Modify to read: "... should be justified and inherent uncertainties should be identified <b>and their potential impact assessed.</b> "	The potential impact of such uncertainties should be discussed (weighted) in the document suite.	It was corrected			
SP-39	5.65	Add at the beginning. " <b>When the changes were relevant</b> ".	Its no always necessary to repeat all the analysis	It was corrected			
CAN A-27	Section 5.66 (AECL)	title of section 5.66 is Probabilistic Safety Assessment. Other parts say probabilistic safety analysis e.g. section 2.3. Should use former and be consistent.		It was corrected			
UK-72	Paras 5.66 to 5.86	The PSA section needs improvement and should give consideration to the issues raised in Table A-11 of Tech Doc -1511.	Improve quality.		It will be considered		
UK-73	Para 5.67, 4 <sup>th</sup> bullet		Consider redrafting this bullet point. The meaning and intention of the current wording is		It will be considered		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			not clear.				
ARM 14	Para 5.67 (the third doc)	<ul style="list-style-type: none"> <li>Whether the scope (all operating modes, internal and external hazards). Methodologies and extend (level 1, 2, 3) of the PSA are in accordance with current national and to the international standards and good practices.</li> </ul>	If we are specifying PSA levels then, it would be appropriate to specify the scope as well.	It was corrected			
Hungary-2	Page 32. 5.67./last but one	...methodologies and extent (...level 1,2,3).....	Typing error: "extent" instead of "extend"	It was corrected			
<a href="#">GER-15</a>	5.67 & 5.68		Section "scope and tasks" related to "methodology" Regarding the contents in both sections, a clear distinction between these two sections, with respect to background and objective is not drawn.		It was modified		
Hungary-3	Page 33. 5.68./ 4 <sup>th</sup> bullet	<ul style="list-style-type: none"> <li>Guidelines for modelling of operator actions, common cause events, cross-link effects, redundancy and diversity within the PSA.</li> </ul>	The original text (PSA of operating actions, CCFs...) is not correct. The PSA is an overall activity, where guidelines for the listed modelling issues are needed.		It was considered (other comments)		
ARM 15	Para 5.68 (the first doc)	<ul style="list-style-type: none"> <li>Existing PSA report and model and their assumptions.</li> </ul>	Actually things to be reviewed are PSA report and plant PSA model. Just to be more specific.		It was modified		
<a href="#">GER-16</a>	5.68	Better use "review...", "evaluate...".	Section "scope and tasks" Compared to the wording in the chapter "Deterministic Safety Analysis" the wording in this chapter is not constructive. The	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			objective of the section "scope and tasks" should be clarified in the sense how to assess the safety factors.				
<a href="#">GER-17</a>	5.68/6	Review/evaluate the analysis and modeling of operator action, common cause events, cross-link effects, redundancy and diversity.	Not the guidelines, the analysis and the modeling should be reviewed.		It was considered (other comments)		
<a href="#">GER-18</a>	5.68/8	Review/evaluate the consistency of the accident management programme for beyond design basis accidents with PSA models.	The PSA models should be reviewed, not the PSA results.		It was considered (other comments)		
UK-74	Para 5.68	<p>Modify the bullet points to read:</p> <ul style="list-style-type: none"> <li>▪ The existing PSA, its assumptions, fault schedule, representation of operator actions and common cause events etc are a valid representation of the current plant configuration and safety case.</li> <li>▪ Results of the PSA show that risks are sufficiently low and well balanced across postulated initiating events and operating states, and meet the relevant probabilistic safety criteria.</li> <li>▪ Analytical methods and computer codes used in the PSA are valid and comparable with current methods.</li> <li>▪ The scope and applications of the PSA are sufficient for at least the period of operation until the next PSR.</li> <li>▪ The use of the PSA results in informing the Beyond Design Basis Accident management programme.</li> </ul>	The existing text is not sufficiently detailed and could lead to misinterpretation.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
SP-40	5.69	Add at the end: <b>with the scope agreed with the regulatory body</b> ”	Idem 5.65		It was considered (other comments)		
RU-5	5.70	The current state of this safety analysis should be reviewed for the completeness of the set of initiating events and hazards.	Exclude a word "postulated", as concerning to deterministic method	It was corrected			
UK-75	Para 5.71 and in Deterministic section	We should ask for cross comparison of PIEs between these two safety factors for consistency of assumptions.	These two safety factors should be strongly related.			It was already considered to validate code	
SP-41	5.73	Add at the beginning <b>“if it is necessary to repeat or make some new analysis”</b>	Idem 5.65	It was corrected			
UK-76	Para 5.74		This paragraph needs to be reviewed to improve clarity. In particular, consider the use of the term ‘cross-links’, which is not normally used in PSA.		It was considered (other comments)		
<u>GER-19</u>	5.74a (new)	The human reliability analysis used in the PSA should be reviewed to ensure that plant-specific and scenario-dependent actions are modeled and current methods are being used.	The review of human reliability analysis should be addressed.		It was considered		
CAN A-28	Section 5.76 (AECL)	Expand upon the implication/meaning of “a living PSA”			It was considered		
SP-42	5.77	Add at the end : <b>“The scope should be agreed with the Regulatory Body</b>		It was corrected			
UK-77	Para 5.80	Modify this paragraph to read: “For each hazard listed the review should evaluate whether there is adequate protection against the hazard, taking into consideration the following: <ul style="list-style-type: none"> <li>▪ Hazard magnitude;</li> <li>▪ Hazard frequency;</li> </ul>	The existing scope statement is too weak.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<ul style="list-style-type: none"> <li>▪ Current safety standards;</li> <li>▪ Current understanding of environmental effects;</li> <li>▪ The hazard withstand capability of the plant claimed in the safety case, based on its current condition and allowance for predicted ageing and degradation; and,</li> <li>▪ Procedures are appropriate to cover claimed operator actions to prevent or mitigate the hazard.”</li> </ul>					
Egy-3	Para 5.82	Radioactive sources	Radioactive source represents an internal hazard to the plant safety if it exists inside the plant , I suggest to added it to the list of internal hazard		It was reflected explicitly		
Egy-4	Para 5.82	Flooding	Flooding is an external hazard it should be deleted from internal hazard			Flooding is considered both internal hazard and external hazard	
UKR-4	Addition to para. 5.82	Supplement the list of internal events with the following: -drop of heavy loads.	Incomplete list of initiating events.		It was considered (other comments)		
UK-78	Para 5.83	Consider deleting “sun storm”	This is a subset of EMI, although may involve a sustained loss of grid in some Member States. <i>Please review at the next Consultants Meeting.</i>		It was considered (other comments)		
UK-79	Para 5.83, 6 <sup>th</sup> bullet	Modify to read: “ <b>Hydrogeological and</b> hydrological	For completeness.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		hazards (extreme groundwater levels, seiches, etc)”					
UK-80	Paras 5.82 and 5.83	The following factors should also be considered for review: <ul style="list-style-type: none"> <li>▪ toxic/corrosive liquids and gases;</li> <li>▪ vibration;</li> <li>▪ traffic;</li> <li>▪ subsidence;</li> <li>▪ external missiles;</li> <li>▪ high humidity;</li> <li>▪ structural collapse;</li> <li>▪ loss of external services (cooling water, electricity, etc);</li> </ul>	The current lists are incomplete.	It was corrected			
SP-43	5.84bis	Add a new point: The analysis should be repeated or revised if there are relevant changes on hazards, the plant, in the computer codes or in the standards	Its not always necessary to repeat all the analysis	It was corrected			
CAN O-15	Section 5.89, Line 1 (OPG)	Remove “Hazard” and Add: “hazardous”		It was corrected			
UK-81	Para 5.89	Modify to read: “Knowledge gained from real occurrences of hazard events, in particular those that have occurred on nuclear power plants, should be identified. Any experience from managing such events (e.g. external flooding, seismic and tornado events) should be used to improve existing procedures.”	Reword to improve clarity.	It was corrected			
RU-6	5.91	Safety performance is determined from assessments of operating experience, including safety related incidents, and records of safety system unavailability radiation doses, and the generation of	Exclude the words “operation of organization” as not clear and not having developments in the subsequent text.		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		radioactive waste and radioactive effluents.					
FIN-17	5.92	move “including the evaluation of root causes of plant events” to a modified safety factor (9) covering the whole OEF program.	SF (8) describes already mainly the review of safety indicators and their trends. Safety factor (9) would be clearer if the whole OEF programme (internal and external events and operating experience, research findings, ...) would be reviewed under one safety factor. Internal OEF is not covered comprehensive enough now under SF (8).		It was considered (other comments)		
Egy-5	Para 5.93 Page 37	Safety related incidents , low level events and near misses	The word " misses " the meaning is not clear			The definition of near miss is in the Safety Glossary of the IAEA	
UK-82	Para 5.93, 8 <sup>th</sup> and 11 <sup>th</sup> bullets	Consider deleting the following bullets: <ul style="list-style-type: none"> <li>▪ off-site contamination and radiation levels</li> <li>▪ discharges of radioactive effluents</li> </ul>	Repetition. These topics are also the subject of Safety Factor 14 <i>Radiological impact on the environment.</i>	It was corrected			
CAN A-29	Setion 5.93 (AECL)	safety system unavailability should be safety system unreliability		It was corrected			
CAN A-30	Section 5.94 (AECL)	“The review of safety performance is closely linked to the Safety Factor “Use of experience from other plants and research findings”, but for this safety factor should be confined to operating experience from the plant under review.”	Recommend that internal experience and external OPEX be amalgamated. Usually the same people running the processes that are very, very inter-related. Also, WANO has an OPEX program under one PO&C. (Let's not try to be too different.)	It was corrected			
FIN-18	5.94	Delete the text.	Reorganising the SFs (8) and (9) would make 5.94 not necessary.		It was modified		
UK-83	Para 5.95	Modify to read:	Missing criteria.	It was corrected			



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		“...which should be subjected to a trend analysis and comparison <b>with other plants in the same nation and</b> with international trends to highlight....”					
UK-84	Para 5.96	Modify to read: “In addition, the review should take account of the effectiveness of the methodology used to evaluate and assess operating experience and trends, to identify whether the methodology requires revision. The findings of the reviews of other safety factors should be considered in undertaking this task.”	Reword to improve clarity.	It was corrected			
FIN-19	5.97 and 5.98	Although radiation risks need to be considered generically across the PSR, the review of this safety factor should consider specifically data on radiation doses and radioactive effluents and the effectiveness of radiation protection measures. Records of radiation protection doses and radioactive effluents...	Add “and radioactive effluents and the effectiveness of radiation protection measures”. Delete the last sentences in 5.97. Combine 5.98 with 5.97. If there would be separate area for radiation protection, this recommendation would move there.	It was corrected			
UK-85	Para 5.97	Consider adding the following after the 1 <sup>st</sup> sentence: “The review of radiation doses etc needs to consider the types of activity being undertaken.”	We need to compare like with like (c.f. Para 5.104).	It was corrected			
FIN-20	5.102	move first two bullets to a separate safety factor on OEF	If the SFs (8) and (9) were reorganised.			Rejected	
UK-86	Para 5.102	Add the following to the list of processes: “implementation of identified corrective actions from events”	It is necessary to review how good the operator is at learning from its previous adverse experiences.	It was corrected			
UK-87	Para 5.103	Modify this paragraph to include the need to learn from short-term periodic	It is necessary to check whether the overall review process is		It will be considered		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		and other reviews.	really working, although this is possibly addressed in Safety Factor 10 <i>Organisation, safety management systems and safety culture.</i>				
CAN B-4	Section 5.103 (BPLP)		1st bullet is incomplete			R	
FIN-21	5.106	move the recommendation to a separate SF on OEF	If the SFs (8) and (9) were reorganised.			R	
SP-44	5.108	Change: In cases where there are significant findings in the effectiveness of the process, the PSR should document <del>a full review of operating experience at the plant over the review period</del> the adopted solution	Not always its possible review all the process, . IT depends on the quality and existence of reliable records	It was corrected			
SP-45	5.110	Add before the last sentence:...review period, if it is applicable(e.g. indicators, trends)	It is not always possible individualize all the routine assessments on a year per year basis.	It was corrected			
SP-46	5.111	1 <sup>st</sup> line change: ...from non-nuclear plants; to ... from non-nuclear facilities	The experience of non-nuclear facilities being different from “Plants” can also be useful	It was corrected			
SP-47	5.116	Change the last line: ...process, the PSR should include a review of wider operational experience from the review period; the appropriate measures should be taken. Those measures can be review of wider operational experience	It is not always possible to review all the old operational experience. Sometimes the records are not achievable or are of poor quality	It was corrected			
UK-88	Para 5.117	Modify this paragraph to make it clear that the report needs to cover the commissioning of research in the light of knowledge gaps, but consistent with national regulations.			It will be considered		
SP-48	5.118	5 <sup>th</sup> line Change: follow-on plants	It is only a possibility	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>should</del> may be					
UK-89	Para 5.118, 2 <sup>nd</sup> sentence	Modify to read: “ <b>In these circumstances</b> a full review of this safety factor should be undertaken for the reference plant in a series of linked PSRs.”	Without this modification, the logic doesn't work for singleton PSRs.	It was corrected			
ENISS-33	5.119-5.128	ORGANIZATION, MANAGEMENT SYSTEM AND SAFETY CULTURE	This safety factor is strongly linked to the point “HUMAN FACTORS (5.135 -142). We strongly encourage combining these safety factors.			Rejected	It was requested not to change the number of SFs (Other MSs' comments)
UK-90	Para 5.119	We need to ensure that this paragraph (and possibly the entire section) encapsulates all of POPMAR.	POPMAR (from UK's HSG65) = Policy, Organisation, Planning, Managing, Auditing, Reviewing.		It was considered		
UK-91	Para 5.120	Modify to read: “...adequate <b>and effective for ensuring</b> the safe operation...”	Suggest using the same text used in Para 5.130; the current wording sounds weak.	It was corrected			
ARM 16	Para 5.121	The review of safety management should evaluate the following elements or programmes against national and international standards.	The review ---- should review – sounds a bit strange.		It was modified		
ARM 17	Para 5.121 (the first doc)	<ul style="list-style-type: none"> <li>Utility and/or plant policy statements</li> </ul>	In some cases the Utility and the Plant is the same organization (for example Paks NPP. Armenian NPP., Ignalina NPP)	It was corrected			
Slovakia 5	5.121	The review of plant management system should verify whether following elements fulfil requirements of national and international standards:	The safety management is not the same as the management system. <ul style="list-style-type: none"> <li>Without change.</li> </ul>		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<ul style="list-style-type: none"> <li>• Utility...</li> <li>• Documented management system and structure of the organization</li> </ul>	<ul style="list-style-type: none"> <li>• Second bullet. According to GS-R-3 para 2.8. documentation of the management system include both a description of the management system and a description of the structure of the organization. Review of the management system on the other hand, could not be done without considering the structure of organization at the same time. And so, second and general part of the organization's structure from third bullet should merge.</li> <li>• Clarity. Remaining part of the third and fourth bullets in DS426 Draft 3 should be united as they have to review management system of plant activities/ divisions with influence on safety.</li> <li>• Without change</li> </ul>				
ARM 18	Para 5.122 (the last doc)	<ul style="list-style-type: none"> <li>• Plant divisions with influence on safety, their functional responsibilities, accountabilities, levels of authority and interactions of those managing, performing and assessing work</li> <li>• Processes and ...</li> </ul>	Just to be consistent with GS- R-3.		It was modified		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		assessment and independent assessments.					
Egy-6	Para 5.122 Page 43	There are two points before the word "Ensure" in line 2 and 3 of para 5.122	The point should be deleted	It was corrected			
SP-49	5.122 sub-sub-section in subsection 4	Change: ... have adequate <del>management</del> quality systems		It was corrected			
UK-92	Para 5.122	Reconsider how this paragraph, in particular the 5 <sup>th</sup> bullet, is phrased.	Do we want the review to verify that every supplier has adequate systems? Surely we want instead to review how the NPP checks this.	A			
UK-93	Para 5.122	Consider replacing "ensures" with a more suitable word, for example "confirm".	Reviews cannot necessarily ensure anything (c.f. Para 5.123).	It was corrected			
SP-50	5.123 2 <sup>nd</sup> subsection	Rewrite	It is difficult to understand				
SP-51	5.123 last paragraph	The reference 36 is repeated					
UK-94	Para 5.124, 1 <sup>st</sup> sentence	Consider splitting this sentence into two to read: "Regular and systematic reviews of management systems are required to ensure that the safety policies, goals and objectives of the organisation are being met as required. These reviews should include evaluation of how the tasks highlighted in 5.123 are being undertaken and completed."	Reformatting and rewording to improve clarity.	It was corrected			
JAP 17	5.124	This can be achieved by reviewing independent audits on behalf of senior management, <u>task observations</u> , self assessments and supporting corrective action plans.	There is no definition about "task observations" in this paper. To clarify the requirement, the definition should be inserted.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
JAP 14	5.128	A safety culture assessment should be performed by interviewing all levels of personnel at the NPP and personnel supporting an NPP. If it is the review team who is going to perform the safety culture assessment through interviews, the team should may integrate behavioural scientists to be able to carry out such assessment.	To be consistent with the current of NS-G-2.10.  para 4.42 ...Because some of these aspects deal with the manner in which the operating organization conducts its affairs, it may be difficult for that organization to carry out an objective review and therefore external specialists may be needed.  Interviewing is only one of options to assess a safety culture.	It was corrected			
SP-52	5.129	Add (in) on the 2 <sup>nd</sup> line: ... to rigorous change <b>and distribution</b> control	A controlled distribution is very important	It was corrected			
UK-95	Para 5.129, 1 <sup>st</sup> sentence	Modify to read: “Procedures <b>affecting nuclear safety</b> should be comprehensive...” Or consider the following: “ <b>Operating procedures for the NPP</b> should be comprehensive..”	A graded approach to procedures should be applied.	It was corrected			
ARM 19	Para 5.130	The objective of the review of procedures is to determine organization’s processes for managing, implementing and following working procedures and for maintaining compliance with operational limits and conditions are adequate, effective and ensure plant safety.	The Para discusses not only operating procedures but many different types of procedures (please see Para 5.131). They all are working procedures.		It was modified		
UK-96	Para 5.131	Add a new bullet point to read: “Control of the operating configuration;”	Omission.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-97	Para 5.131, 1 <sup>st</sup> bullet	Consider splitting this bullet and expanding.	The emphasis on safety in normal operation seems weak, e.g. compliance with OLCs could be mentioned.			R	
ARM 20	Para 5.132	The review of this safety factor should:	This wording seems more appropriate. It could not be procedures' safety factor.	It was corrected			
SP-53	5.132 Add a new sub-section at the end	Evaluate distribution process of procedures controlled copied and removal of obsolete edition, and that only the last approved edition is used.	A controlled distribution is very important	It was corrected			
UK-98	Para 5.132, 7 <sup>th</sup> bullet	Modify to read: “... whether the procedures are user-friendly, <b>and can be achieved by the number of staff present during their use.</b> ”	This will ensure that adequate manning levels are available.	It was corrected			
UK-99	Para 5.132	Add a new bullet point to read: “Ensure an auditable trace can be undertaken of procedures.”	It is important to be able to trace the origins of instructions.  Also review whether procedures adequately define which staff can do what tasks and identifies who is responsible for safe delivery. Also document owners?	It was corrected			
UK-100	Paras 5.132 and 5.133	Add the following: “Categorisation of documents;”	Omission. In Para 5.133 importance may be informed by DBA and PSA, but this is manifested in the assigned category.	It was corrected			
UK-101	Para 5.133	The guide says nothing about compliance records.	Ensure this topic is covered within the document.			R	(better in ANNEX)
ARM 21	Before Para 5.135	Human Factor and Staffing	We propose to change the title of this safety factor adding words- and Staffing, because scope of the review of this factor covers			Rejected	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			staffing and training issues.				
UK-102	Para 5.135, 3 <sup>rd</sup> sentence	Rephrase “operating organisation actions”	The implication is that human factors is concerned with organisational behaviours; instead the focus is likely to be on individuals and teams.		It was considered		
UK-103	Para 5.136	Rephrase this paragraph to strengthen the tone and improve consistency.	<p>The purpose is not about determining the status, but about deciding on strengths and required improvements.</p> <p>The introduction does not cover the man-machine interface, which is mentioned in Paras 5.137, 5.141 and 5.142. This inconsistency should be addressed.</p>		It was considered		
ARM 22	Para 5.137	The review of this safety factor should	This wording seems more appropriate. It could not be Human Factors’ safety factor	It was corrected			
UK-104	Para 5.137, 4 <sup>th</sup> bullet	Consider modifying this bullet point on assessing operator actions, to mention the use of task analysis to confirm practicality of assumptions.	Specific details are needed here.		It was considered (other comments)		
UK-105	Para 5.137, 8 <sup>th</sup> bullet	Modify to read; “...relating to hours, <b>types and patterns</b> of work, good health...”	It is not just the total hours worked that is important.	It was corrected			
UK-106	Para 5.138	Modify to read: “Review the following human-machine interface: <ul style="list-style-type: none"> <li>▪ design of the control room and other workstations;</li> <li>▪ analysis of human information requirements and task workload;</li> <li>▪ clarity and achievability of</li> </ul>	Formatting error.	It was corrected			



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		procedures. Further recommendations and guidance can be found in Refs [25], [27], and [28].”					
UK-107	Para 5.140 139, 1 <sup>st</sup> sentence	Modify to read: “The review <b>of this safety factor</b> should include the above tasks...”	Improve clarity.	It was corrected			
ARM 23	Para 5.140	This safety factor review should be carried out with the assistance of properly qualified specialists.	We think that a word is missing, because safety factor could not be carried out, but review could be.	It was corrected			
UK-108	Para 5.141	Modify to read: “...the actual condition of the plant, <b>using for example plant walkdowns by specialists.</b> ”	Specific details are needed here.	It was corrected			
UK-109	Para 5.143, 1 <sup>st</sup> sentence	Modify to read: “...should prevent <b>or otherwise minimise</b> releases of radioactive substances...”	If prevention is impossible, we do not wish operators to just do nothing. In practice, Emergency Arrangements are more about mitigation than prevention.	It was corrected			
SP-54	5.147 7 <sup>th</sup> sub- section	Add: ...equipments, and of residential <b>and industrial</b> developments...		It was corrected			
UK-110	Para 5.147	Consider modifying this paragraph to make it clear that there is a need to evaluate the scope of the scenarios and supporting understanding to ensure alignment with good practice.	Omission.		It was considered (other comments)		
CAN A-17	Section 5.147 (AECL)	<del>Evaluate the security arrangement for emergencies.</del> Suggest that this should be deleted as this should be done under the review of Security.			It was considered		
CAN A-18	Section 5.147 (AECL)	<del>“Consider changes in the maintenance and storage of emergency equipment, and of residential developments around the site.”</del> And “Consider			It was considered		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>implementing changes to the emergency planning related to beyond design basis Accidents</del> Suggest delete these bullets as they will come out of the review if such changes are required.					
UKR-6	Before 5.147	Add the following paragraph before para.5.147:PSR should list: - emergency exercises and taining (including joint training involving local and state organizations) conducted since the previous periodic safety review report; - major results of the training and exercises; -appropriate changes to the emergerncy plan taking into account analysis of the results (with references to the relevant plant documents).	Ensure review of specific information.			It was not considered	The present list covers it – it would be to detailed explanation
UK-111	Para 5.148ff	Methodology statements are needed to support the points made in the previous paragraph i.e. Para 5.147.	Omission.			It was not considered	
CAN O-9	Section 5.149 line 3 (OPG)	Consider including off site emergency organization , it is not clear this is the course			It was considered		
UKR-5	Para.5.149	The information provided in prara.5.49 is recommended to be transferred to para 5.147.	Similar requirements are listed in para. 5.147.			It was not considered	
FIN-22	5.153-160	Area “Radiological impact on the environment” should be replaced with “Radiation protection and waste management” (see comment no. 4)	Recommendation 5.159 overlaps with 5.93 (effluent releases, on-site and off-site contamination and radiation levels). There should be either an own area for all aspects of radiation protection or safety factor (14) could also be included in safety factor (8) (the		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			first option is preferred).				
UK-112	Para 5.154	Consider whether another aim might be to help ensure releases are ALARA, therefore consider modifying to read: "...whether the operating organisaiton has an adequate <b>and effective</b> programme for surveillance..."	This seems like a reasonable aim, although we feel the topic should be discussed in more detail with a technical specialist in this field.  Consider whether this paragraph should also cover mitigation of impact/response programmes, etc as well as surveillance.	It was corrected			
UK-113	Para 5.155	Consider modifying to clarify that if there are no measurements, it is possible to use a nearby representative location.	For clarity.		It was considered (other comments)		
UK-114	Para 5.155, 2 <sup>nd</sup> sentence	It is not enough to just provide an explanation; reasonable actions are also needed.	There is a need to apply ALARA.		It was considered (other comments)		
SP-55	5.155 2 line	Change the text: ...and/or the values examined during he last PSR. To : and/or the historical values	It is more general. This can be the first PSR	It was corrected			
UKR-7	5.155	Add the following parapgraph: PSR should list the major radiation incidents that occurred at the plant in the current period.	Incorporate specific operating experience.			Rejected	It was reflected explicitly in 5.155
SP-56	5.156	Change the text: ... the data should be complied and published. To: The data should be offered to the Regulatory Body	This action depends on the state policy	It was corrected			
UK-115	Para 5.157	Include the standard words on weapons test fallout, major remote events, etc here.	For consistency with other documents.		It was considered (other comments)		
SP-57	5.157 last line	Delete: ... with that due to <del>naturally</del> sources	Can exist radiation sources not natural and extern to the plant	It was corrected			
SP-58	5.158 6 <sup>th</sup>	Delete this word: is adequate and	There are improvements, not	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
	sub- section	<del>corrective</del> actions are taken....	necessary corrective actions				
UK-116	Para 5.158, 1 <sup>st</sup> sentence	Consider splitting this sentence into two to read: “In some Member States, a surveillance programme is also carried out by a public organisation. This can facilitate independent validation of the data provided by the operating organisation.”	Reformatting and rewording to improve clarity.	It was corrected			
UK-117	Para 5.158, 2 <sup>nd</sup> sentence	Modify to read: “...soil, agricultural and marine products, and <b>wild flora and fauna</b> .”	Improve clarity. Also consider making the same modification in the 1 <sup>st</sup> bullet point of Para 5.159.	It was corrected			
SP-59	5.159 7 <sup>th</sup> sub-section	Change this point. NPP don't necessarily cause contamination					
CAN A-19	Section 5.159, Bullet 6 (AECL)	“Off-site monitoring for contamination levels and radiation levels is adequate and corrective actions are taken to keep the levels as low as reasonably achievable.”	Desired action is related to ALARA philosophy and requirement	It was corrected			
		<b>Section 6</b>					
JAP 15	6.1 / 3	The objective of the global assessment is to present a global judgment of the plant's ability and the safety culture for continued operation that includes a balanced view of the significant PSR results including safety improvements and the plant strengths identified in the review of PSR safety factors.	Safety culture should be one of the most important items in the global assessment because it relates to and is influenced by the other Safety Factors.	It was corrected			
UK-118	Para 6.1	Add “ <b>and safety management/culture</b> ” after “ <b>plant</b> ”.	Omission.  Consider redrafting this paragraph as the meaning of the current text is unclear.	It was corrected			
JAP E2	6.3/1	Change “a cross-functional analysis”	Clarification	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		with “An analysis crosscutting interfaces of safety factors”. Otherwise define “a cross-functional analysis”.		in Appendix a			
UK-119	Para 6.3		<p>This paragraph lacks consistency and in some parts clarity.</p> <p>It is not clear which part of Appendix A is being referred to, presumably to the Safety Factors Interface Matrix?</p> <p>Also the meaning of the following is not clear: “high level categories consistent with the IAEA Fundamental Safety Principles (SF-1)”.</p>		It was considered (other comments)		
UK-120	Para 6.4		This paragraph is not very clear. The only thing that may be of relevance is if we know of any current regulatory issues, concerns or findings which it would be prudent to consider as part of the review of all issues.			It was not considered	
UK-121	Para 6.5, 2 <sup>nd</sup> sentence	Modify to read: “It is also beneficial if the <b>interdisciplinary team undertaking the</b> global assessment includes members that are independent from the PSR project team.”	Improve clarity.	It was corrected			
US-9	6.6 / 2	” A method to assess, categorize, rank and prioritize findings should be established prior to <u>performing</u> the global assessment.”	Adds Clarity. Missing word.	It was corrected adequately			
UK-122	Para 6.7		This paragraph is in the wrong place and the wording in the last sentence is confusing by implying			It was not considered	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			that there are two sets of safety improvements. From the experience of one of the UK licensees with PSR there will only be one set of findings and this will arise from the Global Assessment of the issues raised in the 14 individual safety factor reviews. An alternative proposal is suggested in the new Para 6.11 (see Comment 128).				
UK-123	Para 6.7, 1 <sup>st</sup> sentence	Replace “ranked” with “categorised”	Ranking adds little value; categorising does (see the previous comment made on Para 5.14).	It was corrected			
UK-124	Para 6.8, 1 <sup>st</sup> sentence	Modify to read: “The risks associated with the findings should be assessed and an appropriate justification for continued operation, <b>pending implementation</b> , should be provided.”	Improve clarity.		It was considered (other comments)		
UK-125	Para 6.8, 1 <sup>st</sup> bullet, last sentence	Modify to read: “If the modification is necessary on grounds of unacceptable risk, then continued operation should not be permitted until it has been <b>implemented</b> , or adequate interim measures have been taken.”	Improve English.		It was considered (other comments)		
UK-126	Para 6.8, 3 <sup>rd</sup> bullet	Add a new sentence at the end of this bullet to read: “Strengths identified may include, for example, ongoing programmes relating to operational focus, human performance, management of work, training, nuclear professionalism, equipment reliability, management of risks.”	Improve clarity.		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
JAP 18	6.8/2 <sup>nd</sup> sentence	<del>It is possible that each finding considered in isolation may appear acceptable but when evaluated globally they may prove to be unacceptable.</del> <u>Although shortcomings are individually acceptable, their combined effects should also be reviewed for acceptability.</u>	Clarification	It was corrected	It was considered (other comments)		
<u>GER-20</u>	6.8/16	Use of PSA - The use of PSAs to measure the risk posed by any of the findings <del>can be</del> should be considered. In any case the findings in this safety factor have to be reflected in a global evaluation - the consideration of a sole risk-based decision process is not appropriate.		It was corrected	It was considered (other comments)		
JAP E3	6.8 2 <sup>nd</sup> bullet	Rewrite the text as follows; Use of PSA - The use of PSAs to measure the risk posed by any of the findings can be considered. <del>Information from a PSA is clearly helpful, but the uncertainties in data and techniques do not allow decisions on continued operation or plant shutdown to be made on the basis of PSA results alone. However, PSA results may provide a useful tool</del> <u>information for comparing different alternative improvements alternatives nevertheless uncertainties in data and techniques exist and due to this the reliability of the results is not high enough.</u>	To make the message clearer.  Text is awkward.		It was considered (other comments)		
SP-60	6.8 1 <sup>st</sup> sub – section	Add on the last line: <b>..interim measures approved by the Regulatory Body have,,</b>	The measures should be agreed with the Regulatory Body	It was corrected	It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
SP-61	6.8 2 <sup>nd</sup> sub-section	Change the paragraph; ... but the uncertainties in data and techniques <del>do not allow decisions on continued-operation or plant shutdown to be made on the basis of results</del> <b>alone limit their application.</b> However, PSA <del>may</del> provide a useful tool for	PSA is a powerful tool and isn't always necessary a deterministic analysis.	It was corrected	It was considered (other comments)		
JAP 22	6.8 2 <sup>nd</sup> bullet	Use of PSA - The use of PSAs to measure the risk posed by any of the findings can be considered. <del>Information from a PSA is a useful tool for comparing different improvement alternatives though clearly helpful, but the due to</del> uncertainties in <u>the</u> data and <u>in</u> techniques <del>do not allow decisions on continued-operation or plant shutdown to be made on the basis of the</del> PSA results alone <u>may be unreliable.</u> However, PSA results may provide a useful tool for comparing different improvement alternatives.	Content clarification		It was considered (other comments)		
JAP 13	6.8 1 <sup>st</sup> bullet	<del>Time required implementing</del> Corrective actions and/or safety improvements – <del>the actual benefit to safety that the action will achieve and the duration of the benefit (the remaining period of plant lifetime) should be considered. If the modification is necessary on grounds of unacceptable risk, then continued operation should not be permitted until it has been made</del> <u>The time for their implementation could be considered together with the remaining period of the plant lifetime. Adequate interim measures could be taken alternatively depending on the safety significance and the remaining plant life. In any case, the operation should not be permitted until the necessary</u>	Importance is for the plant operation if the necessary modification has been implemented or alternative measures have been taken.  Content clarification	It was corrected	It was considered (other comments)		



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<u>modification has been implemented</u> or <u>until</u> adequate interim measures have been taken.					
JAP 23	6.9	The global assessment should demonstrate that <u>the safety requirements</u> of the defence in depth concept and the fundamental safety functions <u>such as reactivity control, core cooling and the confinement of radioactive material</u> are fulfilled.	For completeness.		It was considered (other comments)		
SP-62	6.9 3th sub – section	Change this point. It has no sense to exclude the PSA tools for decision take and always demand deterministic analysis	Idem to previous point		It was considered (other comments)		
UK-127	Para 6.9	Add the following to read: “Defence in depth may be demonstrated by reference to the five levels defined in INSAG 10 Ref [details to be inserted] as follows: <ul style="list-style-type: none"> <li>▪ Level 1 - Prevention of abnormal operation and failures.</li> <li>▪ Level 2 - Control of abnormal operation and detection of failures.</li> <li>▪ Level 3 - Control of accidents within the design basis.</li> <li>▪ Level 4 - Control of severe plant conditions, including prevention of accident progression and mitigation of the consequences of severe accidents.</li> <li>▪ Level 5 - Mitigation of radiological consequences of significant releases of radioactive materials.”</li> </ul>	Improve for clarity.		It was considered (other comments)		
UK-128	Para 6.11	Add a new paragraph after Para 6.10 (to become the new Para 6.11) to read:	Improve clarity.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		“Where the global assessment determines that safety improvements or corrective actions are required these should be categorised (by safety significance) and prioritized. The approach for the categorisation and prioritization of safety improvements can be based on deterministic analyses, probabilistic safety analysis, engineering judgement, cost benefit analysis and/or risk analysis (see 6.8). These safety improvements should be included in the integrated implementation plan.”					
UK-129	Para 6.11	Re-number this paragraph to 6.12, if the new paragraph detailed in Comment BE RK22 is accepted.	Typographical change introduced as a result of suggested modification.		It was considered (other comments)		
CAN O-17	Section 6.11, Line 1 (OPG)	Move to section 8	Not Applicable to global assessment		It was considered (other comments)		
JAP 21	6.11	Move this paragraph to Section 9 just after para.9.1; <i>Implementation of the integrated plan for safety improvement.</i>	This paragraph describes implementation of corrective actions and/or safety modifications.	It was corrected	It was considered (other comments)		
		<b>Section 7</b>					
JAP 4	7.1/3-4	The operating organization, <u>if required</u> , should report all safety significant findings of the review to the regulatory body by a date agreed with the regulatory body.	See General comment 1.	It was corrected			
JAP E4	7.1/3,4	Delete “ <del>by a date agreed with the regulatory body</del> ”	It is obvious.	It was corrected			
JAP 5	7.2/1	<u>Depending on the national rules</u> the regulatory body has the responsibility for <u>such as</u> :	See General comment 1.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-130	Para 7.2: 5 <sup>th</sup> bullet	Consider modifying this bullet point to ensure there statement made about reporting to government is consistent with the requirements in Para 9.4.	The wording in Para 9.4 appears to be correct.		It will be considered		
JAP E5	7.2 2 <sup>nd</sup> bullet	Reviewing the scope of the PSR, the conduct, the findings of the PSR <del>review</del> and the consequential safety improvements,	Completeness	It was corrected			
SP-63	7.2	Add a new point: Approve the previous documents of operating organization (Basis document and Project Plan(	The Regulatory Body should approve those documents before the beginning of PSR	It was corrected			
SP-64	7.2 2 <sup>nd</sup> sub-section	Change the text,: Review that the actual scope is, as the anticipate one, the conduct...and approve the final document.	The anticipate scope is in the Basis document	It was corrected			
SP-65	7.2 5 <sup>th</sup> sub-section	Change this point: ...the results of PSR consequential safety improvements, <b>including safety improvements</b>		It was corrected			
JAP 12	7.3	<del>If there are insufficient capabilities of the operating organization or of the regulatory body, assistance in performing or reviewing the PSR may be required from external consultants or technical support organizations.</del> However, The operating organization and the regulatory body should have sufficient technical expertise to manage the contracted work effectively, to assess the results achieved by the contractors, and to take responsibility as stated in 7.1 and 7.2. <u>If there are insufficient capabilities of the operating organization or of the regulatory body, assistance in performing or reviewing the PSR may be required from external consultants or technical support organizations.</u>	The 1 <sup>st</sup> priority is having sufficient technical expertise.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-131	Para 7.3, 1 <sup>st</sup> sentence	Modify to read: "If the operating organisation or regulatory body does not possess sufficient resources or expertise to review the PSR, assistance might be required from external consultancies or technical support organisations."	Reword to improve clarity.	It was corrected			
UK-132	Para 7.4, 3 <sup>rd</sup> sentence	Consider modifying to read: "While the primary responsibility for carrying out the review rests with the operating organisation, an independent review should be <b>considered to ensure suitable</b> objectivity."	The existing requirement is too strong.	It was corrected			
ENISS-34	7.4	In addition, certain parts of a PSR could be carried out by external consultants so as to ensure objectivity. An example of this is the review assessment of the safety factors of organization and administration and human factors. While the primary responsibility for carrying out the review PSR rests with the operating organization, an independent review should be conducted to provide the necessary objectivity.	The word review is used with different meanings in the existing text. Sometimes referring to the content of the PSR itself, and sometimes to the review of the PSR. Our suggestion clarifies this issue.	It was corrected			
JAP 16	7.4	Modify the current text as follows; <del>In addition, certain parts of a PSR could be carried out by external consultants so as to ensure objectivity. An example of this is the review of the safety factors of organization, management system and safety culture as well as human factors.</del> While the primary responsibility for carrying out the review rests with the operating organization, an independent review should be conducted to provide the necessary objectivity. <u>Certain parts of</u>	The messages here to ensure objectivity are: <ol style="list-style-type: none"><li>1. to conduct an independent review, and</li><li>2. for certain parts of PSR concerning to the operating organization itself, the review could be conducted by external experts.</li></ol> Clarification of these messages in	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<u>the PSR, which concern to the operating organization itself such as management system, safety culture and human factors, could be conducted by external consultants/organization for ensuring objectivity.</u>	priority order.				
		<b>Section 8</b>					
UK-133	Section 8 Review Process		<p>We have some difficulties with this Section. Is “Review Process” an appropriate heading? The process model should be viewed as a good practice, but recognize that other practices may be equally acceptable.</p> <p>The precise roles and responsibilities are as set out in the PSR Basis Document.</p> <p>Words such as “approved” may have a legal reading in some Member States. This tension is recognized, for example in the current wording of Para 8.29, but not for example in that of Para 8.27.</p>		It was considered (other comments)		
UKR-1	Section 8. « REVIEW PROCESS» ACTIVITIES OF THE REGULATORY BODY»	Add the following paragraph: In assessment of the periodic safety review report, the regulatory body or its technical support organization should use its own analysis and verification (validation) calculations with the use of alternative codes.	Improve quality of regulatory reviews.	It was corrected			
UK-134	Para 8.3, 1 <sup>st</sup> sentence	Suggest that the first sentence becomes a separate paragraph (clause), and the second sentence is replaced with the following: “The following paragraphs provide	The first sentence implies the following guidance is only directed at the regulatory body, which for Members States with self-regulation is not applicable.		It was considered (other comments)		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		guidance on how these activities could be carried out by the operating organisation and its regulator.”	Suggestions have been made to improve clarity and to emphasis that the approach spelt out in this section is just an example of how the review <b>could</b> be carried out.				
JAP E13	8.3/2-5	The <u>review process described in this section</u> is intended to be sufficiently flexible to allow a Member State <del>to review each safety factor and</del> to modify it <del>in detail to</del> <u>for complying with</u> national requirements and to facilitate the use of findings of relevant studies and routine or special safety reviews.	Clarification	It was corrected			
JAP E6	8.4/the 2 <sup>nd</sup> sentence	As <u>a part of the agreement, the</u> <del>operating organization and the regulatory body should determine</del> an appropriate time <u>and period to freeze</u> the set of documents <del>to be included</del> and <del>the status of the plant safety performance of the plant to be taken as a basis for the PSR should be</del> <u>determined and included in order to</u> ensure consistency across all parts of the PSR and to achieve the agreed time schedule.	To make the message clearer. The 2 <sup>nd</sup> sentence is awkward.	It was corrected			
RU-7	8.4, first sentence	The starting point of a PSR is the information by operating organizationthe regulatory body and agreementbetween them on the general scope,requirements for the PSR, and its expected outcome, as described and agreed in the Basis Document.	To specify edition with same reason as in comment 2	It was corrected			
JAP E6	8.4/the 2 <sup>nd</sup> sentence	As <u>a part of the agreement, the</u> <del>operating organization and the regulatory body should determine</del> an appropriate time <u>and period to freeze</u>	To make the message clearer. The 2 <sup>nd</sup> sentence is awkward.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		the set of documents <del>to be included</del> and <del>the status of the plant safety performance of the plant</del> to be taken as a basis for the PSR <u>should be determined and included in order</u> to ensure consistency across all parts of the PSR and to achieve the agreed time schedule.					
UK-135	Para 8.4	This paragraph needs to be modified so that is also includes agreement as to what parts of the PSR will be done generically (cross-fleet).	To ensure there are no surprises.		It was considered (other comments)		
JAP E14	8.4/3-7	As part of the agreement, the operating organization and the regulatory body should determine an appropriate time to freeze the set of documents to be <u>reviewed included</u> and <u>freeze</u> the status of the safety performance of the plant to be taken as a basis for the PSR <u>in order</u> to ensure <u>the</u> consistency across all parts of the PSR <del>and to achieve the agreed time schedule.</del>	Clarification	It was corrected			
JAP E15	8.5/1	<del>Since the PSR is a major task,</del> an appropriate project management team should be established and a reasonable schedule developed at the outset of the project.	Irrespective of the size of a project it is needed from quality management point of view.	It was corrected			
JAP E16	8.6	The schedule should take into account <del>that the review of the safety factors is an</del> <u>the time for iterative process in the safety factor review</u> and <u>time for interfacing the interfaces</u> between various safety factor reviews.	Clarification	It was corrected			
JAP E17	8.7/2 <sup>nd</sup> sentence	On the basis of the scope, the organization and the schedule, an overall budget for the PSR should then be prepared. <del>If resource intensive</del>	Clarification	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>activities are required for the safety-factor reviews, such as the development of a PSA, the revision of a PSA or configuration management restoration, their scope and depth and their implications on the overall-schedule and budget should be considered in the planning stage. _</del> <u>Review activities that require intensive resources should be identified and their scope and its' depth should be taken into account in the over all budget, when planning the PSR.</u>					
JAP 24	8.8/1-4	A document should therefore be prepared to provide guidance on how to review the different safety factors so as to ensure a comprehensive, consistent and systematic approach. <del>,- particularly if there is no existing internal process to perform the reviews.</del>	Irrespective of the existence of internal process, this guidance document should be prepared.		It was considered (other comments)		
CAN O-19	Section 8.8 (OPG)	It is worth discussing the role of the regulator in the IAEA Guides			It was considered (other comments)		
SP-67	8.8 Last line	Change: This <del>may</del> should also be ...	In parr. 4.21 is a recommendation.	It was corrected			
CAN A-31	Section 8.9 (AECL)	Expand on what is expected in "verification of PSR documentation."				It was not considered	
CAN O-20	Section 8.12 (OPG)	Internal and external organizations				It was not considered	
JAP 25	8.13/1	The content of "common set of databases" should be defined.	"a common set of databases" is used twice in this document; in para.4.21 and 8.13 where its content is still unclear.		It was considered (other comments)		
SP-68	8.13 1 <sup>st</sup> line	Change ... of databases <del>should</del> may be ...	In parr. 4.21 is a recommendation	It was corrected			
SP-69	8.13 last sentence	Change this sentence. It is not always		It was corrected			



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		possible to include all the results of the PSR in a data base.					
SP-70	8.16	The same comment 5.15			It was considered (other comments)		
ARM 24	Para 8.16	We propose to remove the Para.	It repeats the meaning of the last sentence in Para 4.24.			R	
UK-139	Para 8.20, 3 <sup>rd</sup> bullet elsewhere	Replace “ranking” with “safety category” here and throughout the document as necessary.	As previous stated, ranking adds little value; categorising does.	It was corrected			
JAP 26	8.21	The <del>proposed</del> safety improvements and implementation plan <u>proposed in the PSR final report</u> should be updated after <u>discussion on the report with receiving the feedback from the regulatory body on the submitted reports.</u> <del>This update</del> The revised <u>final report</u> should include the outcome of <u>the discussions with the regulatory body</u> regarding the scope and adequacy of the proposals and applicable changes to the ranking and prioritization of the safety improvements.	The content of the update is not the feedback from the regulator but the outcome of the discussion between the operating organization and regulatory body. Both are responsible of the content of the update.		It was considered (other comments)		
JAP 6	8.23	For PSRs performed for multiple standardized units, the integrated implementation plan could be executed in stages. However, this should be justified by the operating organization and, <u>if required,</u> approved by the regulatory body.	See General comment 1.	It was corrected			
UK-140	Paras 8.23 and 8.27	Consider using another phrase instead of “approved”.	Not all regulators have this power.		It will be considered		
JAP 7	8.24/4-5	These approved documents should then be submitted to the regulatory body for review and, <u>if required,</u> for approval in	See General comment 1.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		accordance with national requirements and nuclear regulations.					
CAN O-18	Section 8.25 (OPG)	Remove	This is nice to do but not a “Should” activity.	It was corrected			
JAP 8	8.27	Milestones and time frames provided by the operating organization should be approved, <u>if required</u> , by the regulatory body.	See General comment 1.	It was corrected			
Bel-2	§ 8.26 up to 8.37		Regulatory body and technical support: For Belgium, the task of Bel V (designed as “technical support” on the international scene) is not limited to the technical analysis. It is really in charge to follow and to manage the review of the PSRs, as well as writing the assessment reports behalf of the regulatory body (in collaboration with this one). The project manager of the PSR belongs to Bel V. The description made in section 8 does not always corresponds to this situation. In the section “Activities of the regulatory body », the tasks are related to the regulatory body, excepted for § 8.33, where “the regulatory body and/or its technical support staff” is explicitly stated.  Comment/suggestion: only use the term of “regulatory body”, understood the “regulatory side”, i.e. the regulatory body and its technical support.		It was considered (other comments)		
UK-141	Para 8.28	Modify to read:	Reword and restructure to	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<p>“The regulatory body should appoint a project manager for the PSR review. The responsibility of the regulatory body’s project manager should include:</p> <ul style="list-style-type: none"> <li>▪ Co-ordination of all PSR review activities within the regulatory body (and any external sources of assistance); and,</li> <li>▪ Acting as a focal point for communication with the operating organisation.”</li> </ul>	improve clarity.				
UK-142	Para 8.29	<p>Modify to read:  “The regulatory body should review the PSR Basis Document, as provided by the operating organisation; and should agree the format and content of the subsequent PSR with the operating organisation.”</p>	Improve clarity.		It was considered (other comments)		
SP-71	8.29	<p>Change: ... organization to <del>come to an agreement with the operating organization</del> approve it before the beginning of the PSR</p>	Regulatory Body should approve this document	It was corrected			
CAN A-32	Section 8.30 (AECL)	<p>An assessment plan should be prepared by the regulatory body for performing the review of the PSR reports, to state the assessment criteria to be used, and identify the resources and availability of the technical experts that will carry out the regulatory assessments.  Change highlighted in red</p>				R	
SP-72	8.31	<p>Add: ... of the reviewers to unify criteria...</p>	Revision criterion should be unique	It was corrected			
JAP E18	8.32	<p>The regulatory body should review the PSR reports and assess the <u>PSR</u> findings submitted by the operating organization.</p>	Clarification	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
JAP E19	8.34/2-4	The assessment reports <del>could</del> <u>should</u> also give an initial indication of the acceptability of the safety improvements proposed by the operating organization.	To be consistent with Para. 1.4; PSR could be used as support in the decision making process for licence renewal and for long term operation.	It was corrected			
SP-73	8.35	See point 8.16			It was considered (other comments)		
JAP 27	8.35/4-5	Delete the following sentence or move it to the end of para. 8.16. <del>This may involve proposing or imposing operating restrictions or temporarily shutting down a reactor pending the resolution of the issue.</del>	Irrelevant content to the regulator action. Better to move under paragraph 8.16 of the sub-heading PSR reviews.		It was considered (other comments)		
UK-143	Para 8.36, 2 <sup>nd</sup> bullet	Consider rewording this bullet point.	Clarity is needed here. Surely the report should summarise key safety improvements, and especially those that the regulator has identified that the operator did not.		It was considered (other comments)		
JAP 28	8.36/2 <sup>nd</sup> bullet	Safety improvements not previously <del>addressed</del> <u>resolved</u> in the PSR reports, and	Clarification	It was corrected			
CAN B-13	Section 8, Figure 1 (BPLP)	Remove the approval requirement/wording	Again, for B1&B2, IIP was not "approved" by CNSC. Also, this is inconsistent with what is shown in Figure 4 and what is stated in Section 4.28 in that it requires and approval.		It was considered		
JAP 19	FIG.1.	Change the last step with that of FIG 5.	To be consistent with the paras. 8.24 and 8.37, the end of activities of the plant operating organization and regulatory body, respectively. See relevant comments on the para.8.37 and FIG.5	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
JAP E7	FIG.1.	Insert a note; (see FIG. 5.) in the box of “Activities of the Regulatory body”.	User friendliness.	It was corrected			
JAP E8	FIG.1., FIG.4. and 5.	Use the same wording for an integrated implementation plan of safety improvements.  This varies among the three figures like “integrated implementation plan of safety improvements”, “integrated implementation plan”, and “integrated programme of safety improvement”.	For consistency and user friendliness.	It was corrected			
JAP E9	FIG.1.	Insert a note; (see FIG. 2.) in the box of “Preparation of the PSR project By operating organization”.	For consistency and user friendliness.	It was corrected			
JAP E10	FIG.1.	Insert a note; (see FIG. 3.) in the box of “PSR reviews by Operating organization”.	For consistency and user friendliness.	It was corrected			
JAP E11	FIG.1.	Insert a note; (see FIG. 4.) in the box of “Global assessment, preparation of the programme of safety improvements By Operating organization”.	For consistency and user friendliness.	It was corrected			
JAP 20	8.37/4	(Figure 5 and Figure 1)	To be consistent with the paras. 8.24 and 8.37.  The last step of the FIG.5 should be the last step of the overall PSR process.	It was corrected			
Hungary4	Page 58. Figure 2.	Prepare review plan, budget and human efforts.	During project preparation the required human efforts should be estimated, too.		It was modified		
Hungary5	Page 61. Figure 5.	Prepare assessment plan and human	See above.	A			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		efforts.					
SP-66	Page 61 Fig 5	Last square: Change: ...and agree approve integrated ...	The Regulatory Body should approve the integrate program	It was corrected			
FIN-23	Fig. 3	Current national and/or international safety standards and practices	Add the text to a new box parallel with the the top one (documentation, ...) having a similar arrow to the next level.		It was considered (other comments)		
UK-136	FIG 3	We question whether the last box should say "submit to regulatory body".  Replace "walkdowns" with "walkdowns"	The global assessment may change things; a single consistent submission would be more usual.  Typo	It was corrected			
UK-137	FIG 4 and FIG 5	Reword the parts of the text that refer to agreement by the regulator.	Not all Member States have this power.		It was considered (other comments)		
UK-138	FIG 4	Modify to include reference to the Global Assessment, in particular the categorisation and prioritisation of the safety improvements.	Global assessment (as per Section 6) including categorisation and prioritising the safety improvements is a significant element of the PSR process.		It was considered (other comments)		
CAN A-33	Figure 5 (AECL)	wording in last box needs editorial work					
JAP 10	FIG.5./the last step	Discuss and agree/approve integrated program of safety improvement	See General comment 1. To be consistent with the paras. 8.24 and 8.37	It was corrected			
		<b>Section 9</b>					
UK-144	Section 9 Post-review Activities	Consider including here something about learning from experience, especially for multi (fleet) PSRs.	For completeness.		It was considered (other comments)		
JAP E20	9.2/3-4	The documentation should contain the	Clarification	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<del>last accepted</del> latest version of the PSR documents <del>documentation</del> and information on lessons learned from the PSR.					
SP-74	9.3	Remove this point	This point is like point 9.5 and the writing is not clear.				
JAP 9	9.4/1-3	The operating organization and/or the regulatory body should report the outcomes to the government, <u>if required</u> in accordance with <u>the</u> national legal requirements, custom and practice.	See General comment 1.	It was corrected			
JAP 29	9.4/3	<del>The reporting arrangements required under international conventions will also apply.</del>	Request by international conventions is irrelevant to this guide.	It was corrected			
SP-75	9.5	Add at the end: Like wise the operating organization should modify other affected documentation (e.g Organization manual, Emergency plan, training plans...)		It was corrected	It was considered (other comments)		
RU-8	9.5	The execution of the Periodic Safety Review and the implementation of safety improvements should result in the revision of design, operation and license documentation to reflect the current configuration of the NPP.	To specify edition in view of that by results of PSR it would be necessary to correct also the license documentation.		It was considered (other comments)		
ARM 25	Chapter 9	We propose to rearrange the sequence of Paras in chapter 9 in the following way: 9.1 -9.2 9.2 -9.4 9.3 -9.1 9.4 -9.3 9.5- 9.5 9.6 -9.6	Just to put items in a logical way such as: First - The complete set of document should be collected Second - The outcomes should be reported Third – safety improvements should be implemented, and the plant documentation should be updated. Last two Paras are part			R	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			of documentation update process.				
		<b>Appendix A1 and A2</b>					
CAN A-34	Appendix A2 - Table A1 (AECL)	The Safety Factor report inputs and outputs cited in the Tables of Appendix A2 are just a repeat of the information that is expressed far more concisely in Table A1. I would remove the redundant information from the tables in Appendix A2. Also, if the information is left in be careful to check that the tables in A2 and Table A1 are consistent (e.g., in Table A2 for plant design, SFR 10 is cited as input to SFR1, where in Table A1 it is not shown as an input).			It was considered (other comments) A.1 will move to new Annex		
CAN A-35	Table A1 (AECL)	There should be interface between SF2 and SF6 (feedback through failure rates) Note this is already shown under SF6					
CAN A-36	Page 81 (AECL)	Outputs column (editorial) "indicate findings".				Rejected	Editor will review it
CAN A-37	Page 98, B.1 (AECL)	<ol style="list-style-type: none"> <li>1. Especially for first-time PSRs there should be a method included in the PSR basis document for updating/modifying the ISWR Basis document as the PSR work progresses</li> <li>2. "Guidance" for the global assessment work should be provided in the PSR Basis document. The Basis document is completed very early in the PSR work, it may be too early to formalize the global assessment process</li> <li>3. The PSR Basis document should consider including a dispute resolution mechanism between the licensee and the regulator to help disposition in a</li> </ol>					



COMMENTS FROM MSS				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		timely manner contentious issues/findings					
US-10	Page 79 / DETERMINISTIC SAFETY ANALYSIS / Outputs	Delete paragraph: <del>“If the deterministic review identifies any deviations, the current safety analysis has to be updated as necessary to ensure that it is based on the actual plant design, reflects the current state and predicted state at the end of the review period of SSCs, and that it considers all postulated initiating events that are appropriate for the plant design and plant location.”</del>	Suggest that this paragraph be removed as this information is not relevant to the tables. This information has already been included in the body of the safety guide. It was corrected adequately Adding this paragraph in the table makes it inconsistent with the tables for the remainder safety factors.	It was corrected			
SP-76	Paf 69 Table A1	There are some differences between this table and the text SF10 receive input from SF6 SF7 provide input to SF5 SF7 don't receive input from SF14					
SP-77	Pag 73 (SF2) Outputs	Add to the last but one line: ... and testing or its documentation needs...	A lot of times there re problems with maintenance records				
SP-78	Pag 79 (SF5) Outputs	2 <sup>nd</sup> line, las parr. Add: ... any relevant deviation..	There is a lot of small deviations that don't need more study				
SP-79	Pag 87 (SF9) plant spec. inputs, 5 <sup>th</sup> sub-section	At this point state: Independent internal or external audits and self assessments regarding ... This point is valid for all the safety factors.		It was corrected			
CAN A-38	Page 100, Section B.3 (AECL)	(editorial) “...interfaces between the deviations which still require dispositioning.		It was corrected			
UK-145	A1, 4 <sup>th</sup> sentence	Modify to read: “ <b>The likely</b> correlation between...”	We cannot be so definitive.	It was corrected			
UK-146	A2	Modify to read: “ <b>Potential</b> inputs and outputs as well as ....”	We cannot be so definitive.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-147	Appendix A	Consider whether these tables really add any value, or do they just create consistency problems?	<p>There are mismatches between the entries in Table A1 and the text in the tables in A.2:</p> <ul style="list-style-type: none"> <li>▪ SF1 input from SF10?</li> <li>▪ SF1 input to SF4?</li> <li>▪ SF2 input from SF6?</li> <li>▪ SF7 input from SF14?</li> <li>▪ SF10 input from SF6?</li> <li>▪ SF4 input to SF12?</li> <li>▪ SF6 input to SF10?</li> </ul> <p>There are also problems with consistency between some of the Safety Factor tables, for example some Safety Factor tables lack examples of findings.</p>		It will be considered		
UK-148	Appendix A	Add the appropriate Safety Factor numbers to the relevant sub-headings, for example Safety Factor 1 - Plant Design.	This would allow easier cross-referencing.		It will be considered		
UK-149	Appendix A	Delete the lists of references after each Safety Factor table.	Duplication. These are not referred to in the preceding text and are also listed at the end of the document.		It will be considered		
UK-150	Appendix A, Safety Factor 2 Table	Add "Modification records" to the list of plant specific documents (inputs).	Omission - missing input.	It was corrected			
UK-151	Appendix B	The "shoulds" used in this section should be critically reviewed with a view to removing those without analogues in the main text.	The information in Appendix B is provided as an example of one way to do it.		It will be considered		
UK-152	Appendix B, B1, 4 <sup>th</sup> bullet	Modify to read: "list of safety factors which are <b>to be</b> reviewed within the PSR"	Correct the tense used.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
UK-153	Appendix B, B3, 3 <sup>rd</sup> bullet		The meaning of “dispositional deviations” is unclear. It needs to be explained to improve to clarity.		It will be considered		
UK-154	Appendix B, B4. 3 <sup>rd</sup> bullet	Modify to read: “proposal for resolving these deviations by safety improvements <b>or corrective actions;</b> ”	The scope is incomplete.	It was corrected			
UK-155	References	Delete references [44] and [51] to [75]	These references are not referred to within the text.		It will be considered		
ENISS-35	Appendix A.1	Table A1: Safety Factors Interface Matrix The safety factors in the upper horizontal axis provide input to the safety factors in the vertical axis on the left.	The safety factors interface matrix is clear and combined the inputs and the outputs in order to avoid inconsistency and repetition it is proposed to delete in all tables of the safety factors the related listing.				
ENISS-36	Appendix A.2	Add References	Table: “ACTUAL CONDITION OF SSC“ has no reference. Is it intention or omission?				
ENISS-37	Appendix B, B1 (page 99)	<del>Integrated implementation plan;</del>	This “implementation plan” is the output of the PSR and should be part of B4.	It was corrected			
ENISS-38	Appendix B.1.; Safety Factors; page 100	In this part of the Basis document the following information should be given for each safety factor: <ul style="list-style-type: none"> <li>• Safety Factors’ objectives and scope;</li> <li>• applicable national and international <del>modern</del> <u>current</u> standards, codes, methods and practices that reflect current knowledge;</li> </ul>	The current standards, codes etc. should be applied. Modern is not the correct word.	It was corrected			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		<ul style="list-style-type: none"> <li>relevant applicable industry standards and practices;</li> <li>list of input documents and processes to review;</li> </ul> ...					
ENISS-39	Appendix B, B2 (page 100)	<del>A comparison of the current standards with those prevalent at the time of the previous PSR to identify and assess the significance of any changes;</del>	The identification of any changes is not practical neither useful. What is important is to compare the actual plant conditions with current standards.	It was corrected			
Bel-4	P102		Reference: TECDOC INTERNATIONAL ATOMIC ENERGY AGENCY, Experience of Member states in implementing periodic safety review at NPPs, IAEA-TECDOC (to be published by end of 2009): has the reference been published? If yes, complete the reference, if no: to delete.		It was considered.		
FIN-25	References	Add GS-G-3.5 as a new reference after [14].	GS-G-3.5 is an important and related safety guide to be also referenced.			It was already referred in references	
RU-9	A.2 Inputs, outputs and references to review the Safety Factors	REFERENCES: [3], [5], [9], [10], [11], [12], [13], [14], [15], [16], [21], [22], [25], [26], [27], [28], [32], [55], [56], [57], [58], [59], [60], [61], [62], [63].	It is expedient to specify references without the detailed name, as shown in an example for the Safety Factor PLANT DESIGN				
Bel-3	p108		Contributors to the review: specify the year of the meeting	Accepted			Editor
		French comments	Comments were late and they were reviewed separately just before the Coordination Committee.				
FRA G1	General	General comment: The guide should not deal with LTO which is a different topic from PSR.				R	24th NUSSC decision

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		Indeed, due to the regulation in force in each country, the requirements may be different for LTO and PSR and consequently, the regulator cannot make a decision on LTO and PSR together even though this could be of interest for the operator. For this reason, the guide should focus only on the PSR.					
FRA G2	General	General comment: The size of the document has increased from 52 pages in the first version to 107 pages. The reading of the document is thus more difficult without providing significant benefit to the guide the content of which was only subjected to minor changes.			Partially Accepted A1 is kept A2 go to ANNEX		
FRA 1	General	Replace Appendixes by annexes	The information in current appendixes is valuable but an annex would be more appropriate as the documents referenced are likely to evolve. Furthermore, it helps reducing the volume of the guidance.	A			
FRA 2	General		The safety culture factor methodology should be enhanced		Partially Accepted INSAG 4		
FRA 3	General		The human factors factor is too much focused on competencies. Furthermore, the methodology to assess adequacy of competences is very light...		Partially Accepted 5.134-5.139 were modified		
FRA 4	1.2/4	Replace “primary” by “common”	Primary is too exclusive.			R	Original text
FRA 5	1.6/9 & 10	Replace “Appendix” by “Annex”	Annexes are more appropriate.	A			
FRA 6	2.4/3	Replace “To do this, the Periodic Safety Review needs to identify any lifetime limiting features at the plant in order” by “Periodic safety review helps to”	Current wording is too specific. Limiting factors can be established without PSR. The idea is also captures in 3.2		Partially Accepted with other comments		
FRA 7	2.15/2nd bullet	After “deviation” add “(shortcoming)”	Clarification. A deviation could be understood as positive or		Partially Accepted with other		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			negative.		comments		
FRA 8	3	After “PSR INPUT IN ASSESSING LONG TERM OPERATION” add “OR OPERATING LICENCE RENEWAL”	Clarification. To be consistent with 3.2	A			
FRA 9	3.3	Transfer 3.3 as a footnote related to “or licence renewal” in 3.2	Such text is just an explanation which offers flexibility.			R	24th NUSSC
FRA 10	3.7	Delete 3.7	DS426 is about PSR, not about LTO			R	24th NUSSC
FRA 11	4.7/2	Delete “regulatory”	The PSR basis document is written by the licensee. The regulatory review is governed by the regulator review process, which should be taken into account in the basis document.			R	It is important for the scope of the regulatory review of the PSR reports
FRA 12	4.9/6	After “engineers”, add “KTA rules...”	To include non-US references...	A			Other comments
FRA 13	4.15/1	Delete “a large number of”	Superfluous			R	From the old version
FRA 14	4.15/4	Delete “For the plants, with modern configuration management and safety analysis, the first PSR request much less efforts.”	Superfluous		PA		Other comments
FRA 15	4.16/2	Delete “significantly”	Too optimistic	A			
FRA 16	4.18/2	After review, add “and updated following the PSR”	Clarification to explicitly include update of FSAR.				It is a corrective action
FRA 17	4.25/2	Transfer as footnote “It is possible that a deviation in one safety factor can be compensated for by strength in another safety factor.”	Explanatory text only.		Modified		Other comments
FRA 18	5.2/4	After “organization”, add “, national regulations”	Clarification		Modified		Other comments
FRA 19	5.4	Delete 5.4	Duplicates 4.25		Modified		Other comments
FRA 20	5.5	Combine 5.5 with footnote created in 4.25	5.5 and 4.25 both deals with the rationale for a global assessment. See also comment 0		Modified		Important to have here
FRA 21	5.9/2	Delete “except that of safety performance”	It can be used to benchmark...			R	Text will be edited
FRA 22	5.12	Replace 5.12 by : “Deviations can be categorized as	There are actually 3 types of deviation and not 2. It is important			R	Late comment it will be edited

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		follows: • deviations for which no improvement is necessary; • deviations for which no improvement can be identified or is not practicable; • deviations for which safety improvements are necessary.”	to discriminate issue were no improvements are needed from issue were improvements would, in theory, be advisable but can't either be identified or be practicable.				
FRA 23	5.13	Replace 5.13 by “Deviations for which no improvement is necessary or no improvement can be identified or no improvement is practicable should be justified by the operating organization and, as appropriate, reviewed, agreed or approved by the regulatory body.”	To be consistent with comment on 5.12 (#0). Also allows flexibility for the regulatory work.			R	Other comments It will be edited
FRA 24	5.15/2	After “the public”, add “or the environment”	Environmental protection has to be taken into account.	A			
FRA 25	Title before 5.18	Replace “PLANT DESIGN” by “SAFETY FACTOR : PLANT DESIGN”	Clarification	A			
FRA 26	5.19/2	Before “national”, add “licensing basis”	Conformance with the current licensing basis has also to be checked.	A			
FRA 27	5.22/9	Replace “could be performed” by “may be performed if”	Clarification			R	
FRA 28	Title before 5.28	Replace “ACTUAL CONDITION OF SYSTEMS, STRUCTURES AND COMPONENTS” by “SAFETY FACTOR : ACTUAL CONDITION OF SYSTEMS, STRUCTURES AND COMPONENTS”	Clarification	A			
FRA 29	5.28/2	Delete “and whether it is adequate for them to meet their design requirements.”	Superfluous		Other comments		
FRA 30	5.29/2	Replace “it is adequate for them to” by “they will”	Alternate wording		Other comments		
FRA 31	5.30/8th bullet	Delete “and operational occurrences related to the given SSC”	Superfluous (already encompassed by operating history)	A			
FRA 32	5.32/1	Replace “be available from” by “data from”	Clarification			R	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
FRA 33	5.34/2	Replace “a necessary” by “an”	If the inspection is necessary, then it should be performed...			R	
FRA 34	Title before 5.38	Replace “EQUIPMENT QUALIFICATION” by “SAFETY FACTOR : EQUIPMENT QUALIFICATION”	Clarification	A			
FRA 35	5.39/3	Delete “and separated”	Separation is not within qualification (see 5.38 statement)	A			
FRA 36	5.39/3	Replace “qualification/separation” by “qualification”	Separation is not within qualification See also comment 0	A			
FRA 37	5.41/1	Before “formalized”, add “is”	Typo	A			
FRA 38	5.44/last bullet	At the end, add “(see also previous safety factor)”	Actual condition of SSC is reviewed in the previous safety factor.	A			
FRA 39	5.45/1	Replace “existing safety standards” by “safety standards existing when the equipment was manufactured/installed”				R	Objective of PSR
FRA 40	5.45/bullet list	At the end of list, add another bullet :” • the comparison with current safety standard qualification expectation”	PSR should establish compliance with original expectations but also investigate compliance with current safety standards (to identify whether improvements should or not be implemented)			R	Other comment
FRA 41	Title before 5.48	Replace “AGEING” by “SAFETY FACTOR : AGEING”	Clarification	A			
FRA 42	5.55/2nd bullet	Delete “comprehensive”	Superfluous			R	Old text
FRA 43	5.55/5th bullet	Delete “comprehensive”	Superfluous			R	Old text
FRA 44	Title before 5.56	Replace “DETERMINISTIC SAFETY ANALYSIS” by “SAFETY FACTOR : DETERMINISTIC SAFETY ANALYSIS”	Clarification	A			
FRA 45	5.56/3	Replace “postulated initiated events” by “abnormal operational occurrences and accidents conditions”.	Broader scope			R	Editor IAEA glossary
FRA 46	5.63/6	Delete “design basis”	BDBA, including severe accidents, should also be considered			R	IAEA glossary
FRA 47	5.64	Locate 5.64 after 5.65	More logical order as this			R	IAEA glossary



COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			paragraph is applicable to DBA and BDBA analysis.				
FRA 48	5.65	Separate 5.65 into two paragraphs : “5.65. The supporting analyses for beyond design basis accidents should be reviewed. “5.## It should be determined whether the arrangements aimed at preventing severe core damage and arrangements to mitigate its consequences are still sufficient and whether any improvements are reasonably practicable.”	BDBA are not limited to severe core damage. Furthermore, in new designs (i.e. EPR) severe accidents are considered as part of the design.			R	IAEA glossary
FRA 49	Title before 5.66	Replace “PROBABILISTIC SAFETY ASSESSMENT” by “SAFETY FACTOR : PROBABILISTIC SAFETY ASSESSMENT”	Clarification	A			
FRA 50	5.66	Replace 5.66 by “A review of the probabilistic safety assessment should be conducted for each nuclear power plant, confirming : - that the overall plant design is balanced; - the design basis for items important to safety; and evaluating the plant behavior for postulated initiating events as well as multiple failures scenarios”	To be consistent with wording used for other safety factor and be more symmetric with deterministic safety analysis.		It was modified (other comments)		
FRA 51	5.68/5th bullet	Replace “Consistency of the accident management programme for beyond design basis accidents with PSA results” by “Consistency with PSA results of the emergency operating procedure and accident management programme.”	Not to limit to BDBA management but also include DBA management.		It was modified		
FRA 52	5.71/2	Replace “omissions” by “exclusions”	Clarification to remain consistent within the sentence.	A			
FRA 53	5.73/2	Replace “existing safety margins of the plant.” By “the PSA results”	Safety margin assessment is not the only topic...	A			
FRA 54	5.76/4	Replace “useful for making decisions	Clarification. PSA is only one		It was modified		

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		relating to the safety of the plant.” By “”a useful input in the decision making process relating to the safety of the plant operation”	input in the decision making process.				
FRA 55	Title before 5.78	Replace “HAZARD ANALYSIS” by “SAFETY FACTOR : HAZARD ANALYSIS”	Clarification	A			
FRA 56	5.81/4	After “flood potential”, add “earthquake potential or level of potential earthquake”	Clarification. Seismic risk knowledge may have improved... See bullet list in 5.83	A			
FRA 57	5.82/bullet list	Combine “deluge and spray” with “flooding”	Same idea (water penetration prevention and management)			R	More clear
FRA 58	5.82/bullet list	Combine “hot gas release” with “steam release”	Same idea.			R	“
FRA 59	5.83/bullet list	Combine “hydrological hazards (extreme ground water levels, seiches)” with “flooding (including tsunami)”	Same idea (water penetration prevention and management)			R	“
FRA 60	5.83/bullet list	Combine “Sun storm” with “electromagnetic or radio frequency interference”	Same topic			R	“
FRA 61	Title before 5.91	Replace “SAFETY PERFORMANCE” by “SAFETY FACTOR : SAFETY PERFORMANCE”	Clarification	A			
FRA 62	5.91/2	Replace “incidents” by “events”	Consistency with IAEA safety glossary	A			IAEA Glossary
FRA 63	5.99/3	After “accumulated”, add “taking into account radioactive discharge policy”	The generation of radioactive discharges and the generation of radioactive waste are related. Lowering one may increase the other.	A			
FRA 64	5.102/Bullet list		The word “operating regime” is unclear.			R	
FRA 65	5.107	Transfer 5.107 as a footnote to 5.100	Explanatory text only			R	
FRA 66	Title before 5.111	Replace “USE OF EXPERIENCE FROM OTHER PLANTS AND RESEARCH FINDINGS” by “SAFETY FACTOR : USE OF EXPERIENCE FROM OTHER PLANTS AND RESEARCH FINDINGS”	Clarification	A			

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
FRA 67	5.112/3	Before “introduce safety improvements” by” add “adequately assess plant safety and to”	Clarification. To encompass safety assessment			R	
FRA 68	5.113/5	After “operating experience”, add “ as well as plant (deterministic and probabilistic) safety assessment”	Clarification. To encompass safety assessment			R	
FRA 69	Title before 5.111	Replace “ORGANIZATION, MANAGEMENT SYSTEM AND SAFETY CULTURE” by “SAFETY FACTOR : ORGANIZATION, MANAGEMENT SYSTEM AND SAFETY CULTURE”	Clarification	A			
FRA 70	5.119/3	After “safety culture”, add a footnote referring to INSAG 04”	Clarification	A			
FRA 71	5.121/1	Replace “should review” by “should include”		A			
FRA 72	5.123/1	Replace “The review of Safety Culture is an assessment of commitment to safety and should:” by “The review of Safety Culture should include”	Assessing the commitment to safety is a very short summary of safety culture....	A			
FRA 73	5.123/2nd bullet	Replace “Review procedures to ensure they control nuclear and radiation safety and are applied consistently and conscientiously by all staff” by “Review staff adherence to procedure established to ensure safety”	Adequacy of procedure is reviewed as part of the next safety factor review.			R	Editor
FRA 74	5.123/ bullet list	Transfer to 5.122 the following bullets as they are more related to the management system: <ul style="list-style-type: none"> <li>“• Ensure there is an established communication process for safety issues</li> <li>• Verify there is a process for prioritization of safety issues with realistic objectives and timescales that ensures these issues receive proper resources.</li> <li>• Ensure there is a method for achieving and maintaining clarity about the organizational structure and</li> </ul>	These are more related to the management system...			R	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		accountability for what is to be done.”					
FRA 75	5.124/2	Before “being met”, add “adequately set and”	Establishing the goals is also to be reviewed.			R	Editor
FRA 76	5.124/2	Replace “and should” by “. They should”	Alternate wording. Shorter sentence.			R	Editor
FRA 77	5.128/1	Replace “A safety culture assessment should be performed by interviewing all levels of personnel at the NPP and personnel supporting an NPP.” By “Safety culture assessment should include interviews of personnel at the NPP (of all levels) and personnel supporting the NPP staff”.	This sentence is quite limiting as interview is not the only means to assess safety culture. Other data (low levels events reporting, meeting minutes...) are also tools to evaluate the questioning attitude and conservative decision making....			R	Editor
FRA 78	5.128/2	Replace “If it is the review team who is going to perform the safety culture assessment through interviews, the team should integrate behavioural scientists to be able to carry out such assessment.” By “Behavioural scientists should be involved in the assessment”	The original sentence is quite restrictive.			R	Editor
FRA 79	Title before 5.129	Replace “PROCEDURES” by “SAFETY FACTOR : PROCEDURES”	Clarification	A			
FRA 80	5.130/2	After “limits and conditions”, add “and regulatory requirements”	Clarification. Some of the regulatory requirements may not be translated in operational limits and conditions...	A			
FRA 81	5.131/Bullet list	Combine the first tow bullets in : “• Operating procedures for operational states and accidents conditions”	No need to separate BDBA management			R	
FRA 82	5.131/bullet list	Add one bullet “• Procedure for radioactive effluents and waste management”	To explicitly cover such activities	A			
FRA 83	5.132/bullet list	Combine the two bullets “Determine if arrangements for regular review and maintenance of these procedures are in place” and “Evaluate process to update procedures to allow for changes in the assumptions and limits and conditions	Same topic (updates)			R	Other comments

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		arising from the safety analysis, plant design and operating experience.”					
FRA 84	Title before 5.135	Replace “HUMAN FACTORS” by “SAFETY FACTOR : HUMAN FACTORS AND STAFF QUALIFICATION”	Clarification Half of the review is focused on training and qualification...	A			
FRA 85	5.135/3	Delete “In particular, it should determine whether the operating organization actions claimed to be in support of safety are feasible and properly supported.”	Superfluous. Reflected in the scope and tasks			R	Editor
FRA 86	5.136	Replace 5.136 by “The objective of the review of this safety factor is to determine the extent to which human resources and human factors consideration are taken into account in various aspects of the safety of plant operation”.	To be consistent with wording used for other safety factor. To be consistent with the scope and task list.			R	Editor
FRA 87	5.137	Replace 5.137 by 5.137 The review of the Human Factors safety factor should: • confirm that there are adequate staffing levels for the operation of the nuclear power plant with due recognition of absences, shift working and overtime restrictions. • confirm that there are adequate competence requirements for operating, maintenance, technical and managerial staff. • confirm availability of qualified staff on duty at all time and adequacy of processes for employing suitably qualified external technical, maintenance or other specialist staff. • compare the policy to maintain the know-how of the plant staff against good practices and ensure adequate succession management	Restructure 5.137 to gather similar topics.			R	Editor

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		To support this assessment, the review should include : <ul style="list-style-type: none"> <li>• availability of staff training facilities (including the use of simulators) and programmes (for initial training, refresher training and upgrading training);</li> <li>• systematic and validated staff selection methods (e.g. testing for aptitude, knowledge and skills);</li> <li>• fitness for duty guidelines relating to hours of work, good health and substance abuse.</li> </ul>					
		5.### The review of the Human Factors safety factor should also confirm that : <ul style="list-style-type: none"> <li>• operator actions have been assessed to confirm that assumptions made in safety analyses (probabilistic, deterministic and hazard analyses) are valid</li> <li>• human factors in maintenance are assessed to promote error free execution of work</li> <li>• the following human-machine interface is adequate: <ul style="list-style-type: none"> <li>- design of the control room and other work stations</li> <li>- analysis of human information requirements and task workload</li> <li>- clarity and achievability of procedures</li> </ul> </li> </ul>					
FRA 88	5.139		Quite vague and not very useful...			R	
FRA 89	5.140	Delete 5.140	Such paragraph was not written for the other safety factors, including the safety culture.			R	This is more tant for this SF

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
			The use of external consultants may also be useful for other safety factors (PSA...)				
FRA 90	Title before 5.143	Replace “EMERGENCY PLANNING” by “SAFETY FACTOR : EMERGENCY PLANNING”	Clarification	A			
FRA 91	5.147/7th bullet	Before “developments”, add “industrial, commercial, medical, educational”	Residential development is only one part of increased public presence around the site...			R	
FRA 92	5.147/Last bullet	Replace by “Consider implementing changes to the emergency planning related to accidents conditions, including severe accident”	DBA should also be considered. Severe accidents should be highlighted.			R	
FRA 93	5.148/1	Replace “competence of its” by “competence of licensee”	Clarification			R	
FRA 94	5.149/1	After “relevant”, add “external”	Clarification			R	
FRA 95	5.150/1	Before “off-site”, add “licensee”	Clarification			R	
FRA 96	5.151/3	Replace “can” by “should”	Consistency with other recommendations			R	
FRA 97	Title before 5.153	Replace “RADIOLOGICAL IMPACT ON THE ENVIRONMENT” by “SAFETY FACTOR : SURVEILLANCE OF RADIOLOGICAL IMPACT ON THE ENVIRONMENT”	Clarification The review is focus on the surveillance of the impact, not the impact itself. See 5.153	A			
FRA 98	5.153/3	Delete “Member States such a programme is also carried out by public organizations, which can facilitate independent validation of the data provided by the operating organization.”	Duplicates 5.158			R	
FRA 99	5.157	Delete 5.157	The purpose of the surveillance is to know the impact. Whether it is low enough compared to natural radiation is not the issue.			R	
FRA 100	5.159/2nd bullet	Delete 2nd bullet	Duplicates 5.160			R	
FRA 101	5.159/5th bullet	At the end, add “and supplemented as necessary by checks aimed at detecting uncontrolled release resulting from a loss of integrity of physical barriers for	In addition to routine monitoring, on-site monitoring should also include, from time to time, checks of areas were active ducts are			R	

COMMENTS FROM MSs				RESOLUTION			
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification /or rejection
		the containment of radioactive materials”	presents, especially if underground.				
FRA 102	6.1/2	Delete “balanced”	Superfluous. Getting a balanced is not the objective of PSR.			R	
FRA 103	6.7/3	Before “cost benefit”, add “practicality to implement”	Things easy to be done should be done...			R	
FRA 104	6.8/first bullet	Time required for implementing	Typo	A			
FRA 105	6.9/2	Replace “demonstrate that” by “establish whether”	To remain open on the conclusion of the global assessment		It was modified		
FRA 106	7.4/2	Before “objectivity”, add “enhanced”	To avoid the impression that it is not objective when performed directly by licensee staff...		It was modified		
FRA 107	7.4/2	Replace “is the review” by “could be the review”	External consultants are not mandatory...		It was modified		
FRA 108	7.4/5	Replace “be conducted to provide the necessary objectivity.” By “encouraged”			It was modified		
FRA 109	8.3	Delete 8.3	8.1 and figure 5 are enough		It was modified		
FRA 110	Fig 1	Replace “operator/owner” by “operating organization”	Consistency with IAEA safety glossary	A			
FRA 111	Fig 2	Replace “operator/owner” by “operating organization”	Consistency with IAEA safety glossary	A			
FRA 112	Fig 4	Replace “operator/owner” by “operating organization”	Consistency with IAEA safety glossary	A			
FRA 113	8.15/1	Replace “and current” by “or current”	Clarification	A			
FRA 114	8.18/2	At the end, add “of each safety factor”	Clarification	A			
FRA 115	8.29/1	Before “PSR basis document”, add “relevant parts of”	Not all the PSR document is relevant to the regulator			R	
FRA 116	9.1/3	Delete “for project management”	Superfluous			R	
FRA 117	9.4	Transfer 9.4 before 9.3	More logical order			R	



ENISS-40 Annex to the ENISS Comments on chapter 5  
(Comments were considered)

Inputs	Outputs
<p>Standards and requirements:</p> <ul style="list-style-type: none"> <li>• Current national and international requirements, codes and standards on design and site evaluation</li> <li>• Current national and international good practices on design and site evaluation</li> </ul> <p>Plant specific documents:</p> <ul style="list-style-type: none"> <li>• FSAR related chapters (1-12, 14, 16)</li> <li>• A site evaluation (from FSAR or similar safety document)</li> <li>• A list of SSCs important to safety and their safety classification (from FSAR or similar safety document)</li> <li>• The documented design basis (original or reconstituted and updated) including the list of PIE's</li> <li>• A detailed description of the plant design, supported by drawings of the layout, systems and equipment (from FSAR or similar safety document)</li> <li>• Technical specifications (FSAR Chapter 16)</li> <li>• Results of tests in the Commissioning phase</li> <li>• <u>Review compliance with plant design specifications (ENISS 40)</u></li> </ul> <p>Operating Experience:</p> <ul style="list-style-type: none"> <li>• National and international operating experience from similar plants</li> <li>• Actual plant physical condition</li> </ul>	<p>The assessment of Plant Design may indicate strengths or findings in some of the following areas:</p> <ul style="list-style-type: none"> <li>• Compliance with current safety and design standards</li> <li>• Defence in depth in the prevention and mitigation of events (faults and hazards) that could jeopardize safety,</li> <li>• Dependability (supporting systems) requirements</li> <li>• Records of the design basis, modifications to the plant, test results</li> <li>• FSAR</li> <li>• Recommended plant modifications</li> <li>• New operational margins</li> </ul> <p>Based on the results of the review, reassessment of safety margins against current standards and requirements may be required</p>