

Japan NUSSC Comments (Rev.1) on DS522-DPP “Evaluation of Seismic Safety for Existing Nuclear Installations”

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Japan NUSSC member Page.... of...1 Country/Organization: Japan / NRA Date: 17 May, 2019							
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	Last paragraph of 3. JUSTIFICATION	The revision will also take into consideration feedback from existing operating experience, technical safety review services, advisory services and the current state of practice (including operating experience related to seismic re-evaluations of NPPs, e.g., Kashiwazaki-Kariwa, Fukushima-Daiichi, Onagawa).	There is no clear feedback from operation experience and the seismic re-evaluation on these NPPs. The description in DPP should be improved to be able to handle wide feedbacks and findings.	x			

DS522 – DPP Evaluation of Seismic Safety for Existing Nuclear Installations

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Reviewer: Page..1.. of..1.. Country/Organization: UK/ONR Date: May 2019							
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1		Update as IAEA considers appropriate.	ONR is generally content with the stated objectives set out in the DPP. It is noted that the existing NSG2.13 does not cover the link to emergency preparedness. This revision has the potential to address this. Given the nature of seismic hazard, ie the whole of the site and region will be affected, it is essential that appropriate links are made, for example if claims are made on evacuation or the provision of replenishment of fuel/water stocks after 24 hours or re-establishing grid supplies.			x	Out of scope of DPP522/NS-G-2.13. It refers to safety evaluation of the nuclear installation itself (SMA and Level 1 SPSA does not include site infrastructure and EPR). Site and site vicinity infrastructure and Emergency Preparedness and Response is not in the scope of NSNI – it is covered by IEC.

COMMENTS BY REVIEWER				RESOLUTION			
Country/Organization: FRANCE Date: May 2019 – NUSSC 47 pages							
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1.	3	c) select the suitable methodology, d) define the implementation programme and expected outputs, e) peer review, f) document the results in a manner that facilitates decisions concerning safety. evaluation of relevant SSCs and assessment of protection of nuclear installation regarding seism	These parts may be relevant to be mentioned in the detailed text of the revised guide but cannot be considered as relevant to describe the principle of the evaluation steps: they even do not mention the need to evaluate the performance of SSCs for example.		The scope addresses an extended range of nuclear installations, as defined in the Safety Glossary. The seismic safety evaluation methodologies developed for nuclear power plants are also applicable to other nuclear installations through a graded approach. Two methodologies are discussed in detail: the deterministic approach generally represented by seismic margin assessment (SMA) and the seismic probabilistic safety assessment (SPSA). Variations of these approaches or alternative approaches should be demonstrated to be acceptable.		The scope was modified to be consistent with NS-G-2.13.

2.	7	<p>6. assessment of protection of nuclear installation regarding seism</p> <p>7. Seismic Margin Assessment</p> <p>78. Seismic Probabilistic Safety Assessment</p>	SMA et seismic PSA may not be the only one methodologies			x	<p>There is no need for a new section since the alternative methods are – seismic design method (covered by NS-G-1.6) or variation of SMA and SPSA with appropriate justification. These are discussed in Section 3 “Selection of the Seismic Safety Evaluation Methodology”.</p>
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COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: Framatome for WNA / CORDEL Page.5.of. 2 Country/Organization: WNA Date: 14/05/2019							
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	Section 7	Add a bullet to those under ‘technical aspects’ : ... <ul style="list-style-type: none"> <i>Application of a graded approach for the definition of the ‘Review Level Earthquake’ considering inter alia the remaining duration for operation of the nuclear installation</i> 	A graded approach should not only apply to ‘moderate and low hazard nuclear installations’. It may also apply to nuclear power plants. For example, the ‘Review Level Earthquake’ indicated in section 5 (Scope) item (c) may not be the same if you perform the seismic safety evaluation during the first Periodic Safety Review (e.g.. 1 st PSR after 10 years of operation) or if you conduct it in the context of Long Term Operation (LTO). The reason is that in the first case (1 st PSR) the remaining duration for operation may be up to 50 years (or even more) whereas in the second case (LTO) the remaining duration for operation may be 10 years only. This justifies that a graded approach should be			x	Other risk informed decisions that consider integrated risk over the life time could include considerations of remaining life time. Severity of the seismic hazard corresponding to the RLE is expressed in annual frequency of exceedance and therefore is inappropriate to be graded based on remaining life time of the nuclear installation.

