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Ms. Cindy K. Bladey  
Chief, Rules, Announcements, and Directives Branch (RADB)  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** NEI Comments on Draft New SRP subsection, "Introduction - Part 2, Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: Integral Pressurized Water Reactor (iPWR) Edition," 78 Fed. Reg. 4477; Docket ID NRC-2012-0268

**Project Number: 689**

Dear Ms. Bladey:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)<sup>1</sup> appreciates the opportunity to provide comments on the subject draft new subsection to NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," (SRP).

The current SRP does not contain guidance on the review of safety analysis reports for integral pressurized water reactor (iPWR) nuclear power plants. We agree that additional guidance would be helpful to assist NRC staff with the review of certain iPWR applications for Part 52 Design Certifications or Combined Licenses, and to inform new reactor applicants and other affected entities of proposed SRP guidance on implementation of a risk-informed and integrated review framework for iPWRs.

We note that the staff's goals to complete and publish the public draft DSRS one year prior to submittal of the application, and to issue the final approved DSRS for use not later than the time of docketing of the application, could be improved in order to minimize the need for a process to reconcile differences between the draft DSRS used for submittal and the final approved DSRS. We believe that a goal to resolve comments and issue the final DSRS at least six months prior to the application submittal would achieve this objective.

<sup>1</sup> The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

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Additionally, the proposed draft introduces some undefined terms or terms that are undefined for iPWRs. As noted in the attached comments, we recommend avoiding the introduction of undefined or re-defined terms. We believe that incorporation of the comments provided in the attachment to this letter will improve the SRP and will effectively achieve the NRC's stated objectives.

We appreciate the NRC staff's consideration of these comments. If you have any questions concerning this letter or the attached comments, please contact me or Kati Austgen (202.739.8068; kra@nei.org).

Sincerely,



Russell J. Bell

Attachment

c: Mr. Ram Subbaratnam, NRO/DARR/APOB, NRC  
Ms. Amy E. Cabbage, NRO/DARR/APOB, NRC  
Ms. Anna Bradford, NRO/DARR/SMRLB2  
NRC Document Control Desk

**Industry Comments on Draft New SRP Subsection, "Introduction – Part 2, Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: Integral Pressurized Water Reactor (iPWR) Edition" – March 25, 2013**

Affected Section	Comment/Basis	Recommendation
1. General	<p>Purpose, Last Paragraph, Page 2, states: "The framework is used for iPWR design certification (DC) and COL applications made under 10 CFR Part 52."</p> <p>The SRP scope also includes other Part 52 applications (ESP, SDA, ML). Is it the staff's intent to limit the iPWR risk-informed framework to DCAs and COLAs?</p>	<p>Clarify the applicability to other Part 52 applications.</p> <p>Note that the resolution of this comment affects numerous similar statements throughout the document.</p>
2. Scope of review of license applications, Page 5	<p>States: "However, <u>for a 10 CFR Part 52 application review</u>, verification that the as-built facility conforms to the approved design is performed through the [ITAAC] verification process."</p> <p>The underlined phrase was added to this document versus the current SRP introduction. Verification of conformance of the as-built facility occurs only for a COL, whereas this implies it occurs for both DC and COL applications. Also, ITAAC verification occurs later, not during application review.</p>	<p>Delete the phrase, "for a 10 CFR Part 52 application review."</p>

Affected Section	Comment/Basis	Recommendation
3. Subsections titled, "Deviation from the SRP by Applicants," Page 5, and "Six Month Pre-Application Reviews by iPWR Applicants," Page 13	<p>The subject subsections state that iPWR applications are to include an evaluation of the facility against the SRP or DSRS revision "in effect six months before the docketed date of the application."</p> <p>The above statement is consistent with the requirements in 10 CFR 50.34(h), 10 CFR 52.47(a)(9) and 10 CFR 52.79(a)(41). However, for practical purposes, iPWR applicants will be evaluating their designs against applicable SRP or DSRS sections in effect six months prior to the application submittal date instead of the docketed date of the application.</p>	Recommend including text in this section similar to that provided in SRP Chapter 1.0, Item 9, to clarify that although the NRC regulations specify a review of the SRP "in effect 6 months prior to docket date," the NRC's practice for implementation of this requirement has been to allow applicants to conduct this evaluation based on the SRP or DSRS in effect 6 months before an application is submitted.
4. Deviation from the SRP by Applicants, First Paragraph, Page 5	The subject subsection includes an explanation regarding how applicants can address deviations from the SRP by using alternative approaches to the SRP acceptance criteria. This subsection should indicate that the same approach will be used for deviations from the DSRS.	Revise subsection title to state: "Deviation from the SRP/DSRS by Applicants." Also, the subsection titled, "Six Month Pre-Applications Reviews by iPWR Applicants," on Page 13 should refer to the subsection on how to address deviations to the DSRS.
5. Section II. Acceptance Criteria, Page 7	<p>States: "These criteria can be generally classified as design-based acceptance criteria or as performance-based acceptance criteria."</p> <p>Design-based AC and performance-based AC are foundational terms for this framework. They should be clearly defined so that the framework can be consistently understood and implemented by applicants and staff.</p>	Provide a concise definition of design-based and performance-based acceptance criteria.
6. iPWR Design Pre-Application Reviews and Application Reviews, Page 9	States: "Use of this framework does not relieve the requirement for SSCs that are important to safety to meet NRC regulations for design-basis capability to perform their safety functions regardless of the safety significance categorization..."	Replace "safety significance categorization" with "risk significant categorization."

Affected Section	Comment/Basis	Recommendation
	<p>The term "safety significance" has not been defined in this document.</p> <p>SSCs that are important to safety are not defined for SMRs. Also see comment #16.</p>	
<p>7. iPWR Design Pre-Application Reviews and Application Reviews, Page 10</p>	<p>States: "As used throughout this discussion of the framework, the term 'reviewer' means all NRC staff in all disciplines involved with the pre-application and post-application reviews of specific DSRS sections and creation of the associated SERs."</p> <p>This probably intends to refer to the reviewer of the application itself, not the reviewer of the DSRS.</p>	<p>Replace "DSRS" with "application."</p>
<p>8. General</p>	<p>Overview, Page 10, states, "Example [programmatic] requirements include 10 CFR Part 50, Appendices A and B (general design criteria and quality assurance program)..."</p> <p>It's unclear how the GDCs are considered a programmatic requirement in this sense. While some of the GDCs impose general performance, inspectability, and reliability design criteria, those criteria are satisfied via other means. The GDCs themselves are not a program, but only a mandate to have such a program: typically the SRP acceptance criteria state an acceptable means of demonstrating a GDC is satisfied, not vice versa as is suggested here.</p>	<p>Clarify the use of GDCs as a programmatic requirement; perhaps provide an example as to the use of a GDC in the manner suggested here.</p> <p>Note that the resolution of this comment could affect numerous similar statements throughout this document.</p>

Affected Section	Comment/Basis	Recommendation
9. Overview, Page 11	<p>States: "Under the framework, the staff also has the flexibility to use these programmatic requirements to demonstrate satisfaction of design-based acceptance criteria for the SSCs with low safety/risk significance."</p> <p>The slash is ambiguous. Under the framework, programmatic requirements can be used to demonstrate satisfaction of design-based acceptance criteria for either of the non-risk-significant SSC categories (A2 and B2). For the A1 and B1 categories, which include non-safety-related but risk-significant SSCs, design-based acceptance criteria are reviewed using current processes.</p>	Replace "with low safety/risk significance" with "that are not risk significant."
10. Pre-application Activities, Page 12	<p>States: "Early submittal of settled design information for reference use by the staff will minimize rework of the DSRS sections."</p> <p>What degree of finality does staff expect for "settled design information;" e.g., should the applicant wait until there is very little possibility of the design changing, or submit the design information earlier when the design is still evolving?</p>	Please elaborate on what is meant by "settled."
11. DSRS Preparation, Second Paragraph, Page 12	<p>The DSRS Preparation subsection includes the following statement: "The staff's goals are to complete and publish the public draft DSRS one year prior to submittal of the application, and to issue the final approved DSRS for use not later than the time of docketing of the application"</p> <p>The staff should consider revising its goals to resolve comments and issue final DSRS at least 6 months prior to the application submittal.</p>	Revise as follows: "The staff's goals are to complete and publish the public draft DSRS one year prior to submittal of the application, <u>and to resolve outstanding comments and issue final DSRS at least 6 months prior to submittal of the application,</u> <del>and to issue the final approved DSRS for use not later than the time of docketing of the application.</del> "

Affected Section	Comment/Basis	Recommendation
12. Six Month Pre-Application Reviews by iPWR Applicants, Page 13	<p>States: "Alternatively, iPWR applicants may evaluate the facility against the DSRS revision in effect six months before the docketed date of the application."</p> <p>It is expected that in many cases the Rev. 0 of a DSRS section will not be issued until at or near application submittal. This subsection does not address the process used to reconcile differences between the draft DSRS used for submittal and the final approved DSRS. The currently stated goal is to issue approved DSRSs no later than the time of docketing.</p>	<p>Revise this subsection to provide the option to allow use of a public draft DSRS for the pre-application review if a final approved DSRS has not been issued.</p> <p>Suggest this section describe specifically how the differences between draft DSRS conformance and final DSRS conformance will be reconciled without causing a delay in docketing.</p>
13. Risk-Informed Categorization of SSCs, Page 15	<p>States: "categorize SSCs as (1) either safety-related on non-safety related..."</p> <p>"On" is a typographical error.</p>	Replace "on" with "or."
14. Application of the Integrated Review Approach, Page 17	<p>States: "The staff preparing the DSRS...makes an initial determination of which programs could be used as an alternate method for demonstrating the satisfaction of the performance-based acceptance criteria."</p> <p><i>Statement should also include design-based acceptance criteria.</i></p>	Insert "and design-based" before "acceptance criteria."
15. Application of the Integrated Review Approach, Page 17	See comment #8 regarding GDCs as programs that "could be used to demonstrate the satisfaction of design-based or performance-based acceptance criteria."	Delete or clarify consistent with response to comment #8.

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<p>16. Application of the Integrated Review Approach, Page 19</p>	<p>For B1 category, this subsection states: "For design-based acceptance criteria, the review is similar to the review for A1 SSCs based on their importance to safety under Appendix A to 10 CFR Part 50."</p> <p>This statement combined with the statement on "important to safety" (in the subsection titled, "iPWR Design Pre-Application Reviews and Application Reviews," at the bottom of page 9) introduces a number of concerns.</p> <ul style="list-style-type: none"> <li>• SSCs that are important to safety are not defined for SMRs.</li> <li>• As stated, the GDCs were developed for plant designs that differ from SMRs. How would Appendix A to Part 50 be used to determine what is important to safety?</li> <li>• A D-RAP list is compiled to determine which SSCs need reliability and availability assurance. SSCs that were listed under D-RAP lists for recent DCDs were not considered important to safety. Several SSCs on these lists would not have made the cut to be on the maintenance rule for plants in the current fleet.</li> <li>• This creates the impression that design based acceptance criteria will be applied to SSCs that would not have been considered important to safety for large plants. Consider that these SMR SSCs and the functions they perform are not equivalent in terms of importance in comparison to SSCs at large reactors.</li> <li>• The criteria and design requirements for risk-significant SSCs and SSCs important to safety are not equivalent.</li> </ul>	<p>Appendix A to Part 50 does not define what SSCs are important to safety, so categorization as B1 should not assume that these SSCs are important to safety. Therefore, revise to clarify that the B1 category review is similar to the review for A1 SSCs in terms of risk-significance, but that it takes into consideration the non-safety-related designation of the B1 categorization.</p>

Affected Section	Comment/Basis	Recommendation
17. Application of the Integrated Review Approach, Page 19	<p>States: "At the B2 level, both the design-based review and the performance-based acceptance criteria are anticipated to be minimal."</p> <p>"Review" seems misplaced in this context.</p>	Delete "review."
18. Application of the Integrated Review Approach, Page 19	<p>States: "Review levels A1 through B2 reflect a graded approach to reviews in that performance-based activities within programmatic requirements are increasingly applied to satisfy performance-based DSRS acceptance criteria."</p> <p>Programmatic requirements are also increasingly applied to satisfy design-based acceptance criteria for A2 and B2.</p>	Recommend deleting "performance-based."
19. Application of the Integrated Review Approach, Page 20	<p>States: "When a technical reviewer has determined that a particular program requirement will be used to satisfy a specific performance-based acceptance criterion..."</p> <p>Also applies to design-based acceptance criteria.</p>	Recommend deleting "performance-based."
20. Application of the Integrated Review Approach, Page 20	<p>States: "The requirement to perform this acceptance test will be documented by the applicant in Tier 1 of the DCD for DC applicants or in the License Conditions and plant ITAAC for COL applicants."</p> <p>For A2 SSCs as used in this example, descriptive information that is not certified should be sufficient to confirm that: 1) SSCs are in this category and 2) that they do not have adverse interactions with safety related and highly risk significant SSCs.</p>	Recommend replacing "Tier 1" with "Tier 2" and reconsidering whether an ITAAC is necessary.