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NUCLEAR ENERGY INSTITUTE

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July 13, 2015

Ms. Cindy Bladey
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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Subject: Industry Comments on the Draft Fuel Cycle Oversight Process Cornerstone Technical Document (80 Fed. Reg. 33303); Docket ID NRC-2015-0149

Project Number: 689

Dear Ms. Bladey:

On behalf of the Nuclear Energy Institute's (NEI)¹ fuel cycle facility members, we are providing comments on the U.S. Nuclear Regulatory Commission's (NRC) revised fuel cycle oversight process (RFCOP) draft Cornerstone technical document, Docket ID NRC-2015-0149. We appreciated the February, March and June 2015 public meetings held on this topic and encourage continued engagement with industry on development of the RFCOP.

Our overarching concern is that the Cornerstone document appears to state that entry into the RFCOP requires licensees to implement an NRC approved corrective actions program (CAP). Several cornerstone attributes require the use and inspection of a CAP as part of a license condition. It should be noted that fuel facilities have effective CAPs in place primarily designed to meet the needs of their customers, e.g., commercial nuclear power plants. While some fuel cycle licensees have an NRC approved CAP, there is a limited regulatory basis to require all fuel cycle licensees to implement one. As a result, it is not clear what will happen if a licensee does not implement and request NRC approval of its CAP under Regulatory Guide 3.75 issued in 2014. Indications from the June public meeting are that there will be two separate inspection programs, one for fuel facility licensees without an approved CAP under the current oversight processes;

¹ 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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Ms. Cindy Bladey
July 13, 2015
Page 2

and one for licensees with an approved CAP using the RFCOP. This binary approach to regulation would introduce confusion and questions about the effectiveness of the oversight process for licensees, inspectors, and the public.

The Commission wrote its staff requirements memorandum (SRM) SRM-SECY-11-0140 over three years ago. As noted in the SRM, "the existing [fuel cycle] oversight process is effective and ensures safety and security. Consequently, the activities undertaken to enhance the NRC's fuel cycle oversight process are truly that – enhancements – and are a lower funding priority...as the staff prepares proposed funding adjustments...it should keep this prioritization in mind." In light of that information, industry continues to suggest that our collective attention and limited resources should be focused on issues that are of higher significance, since the current oversight process is adequate, and no safety or security issue has been identified to warrant such a program overhaul. Such a decision would be consistent with the NRC's on-going cumulative effects initiatives and the recent Commission direction on Project AIM where such regulatory initiatives must be prioritized based on safety.

Attached are specific comments and recommended changes if the development of the RFCOP moves forward. We appreciate your consideration of these comments. If you have any questions, please contact me, or Nima Ashkeboussi (202.739.8022; nxa@nei.org).

Sincerely,



Janet R. Schlueter

Attachments: As stated

cc: Ms. Marissa Bailey, NMSS/FCSE, NRC
Ms. Margie Kotzalas, NMSS/FCSE/PORB, NRC
Ms. April Smith, NMSS/FCSE/PORB, NRC

NEI Comments on Draft Cornerstone Document, Docket ID NRC-2015-0149, 7/13/2015

Affected Section	Comment	Proposed Resolution
1. General	<p>In the "Inspectable Areas" section each cornerstone, in the Basis, describes the review of a licensee in "identifying and correcting problems in accordance with the corrective actions program license condition". There are no regulatory requirements for CAP for fuel cycle facilities. Discussions during the June 11, 2015 public meeting seemed to indicate a CAP was a requirement for entry into the RFCOP.</p>	<p>Further detail and understanding of this is warranted. Maintaining more than one oversight process for fuel cycle facilities creates the potential for confusion and over burdensome processes.</p>
2. General	<p>The document identifies dozens of "Inspectable Areas" but gives no indication how these compare with the areas inspected under the existing inspection program. How would the scope of the inspection program change from the status quo if the RFCOP is implemented according to the Cornerstones document?</p> <p>By identifying only Inspectable Areas, the document implies the RFCOP would be based entirely on inspection findings. How would performance indicators figure into the Cornerstones and their objectives?</p>	<p>NRC should show that the Inspectable Areas do not add to the scope of the existing FCF inspection program. Conversely, if the identified Inspectable Areas go beyond what is currently inspected, the NRC should demonstrate why this is essential to assure adequate protection of public health and safety.</p>
3. General	<p>Attributes are inconsistently identified as "Key Attributes" or simply "Attributes", inviting readers to infer that the key attributes are more important than others.</p>	<p>If the proper term in the RFCOP framework is Key Attributes, then use this term consistently and always.</p>

4. General	The attribute descriptions, like the cornerstone objective statements, vary greatly in focus and detail. Some of the attribute statements present philosophy, scope and justification for the choice of attribute.	Reduce the text that follows the title of each attribute to a simple declarative sentence or two that clearly defines the scope of the attribute. Eliminate all other extraneous text or put the elaborative text into a new subsection or footnotes. The extraneous text will become confusing to future readers and will raise questions about the sufficiency and purpose of the Inspectable Areas as knowledge of the thinking behind the foundational documents fades.
5. General	The Objective statements in Appendices A-D include supplemental information (e.g., definition of terms, scope statements, and how-to statements) that goes beyond a simple declaration of the purpose of the cornerstone. This could lead to confusion. The Objective statements in Appendices E-G exemplify the clear, concise statement of purpose we would expect to see in defining the objectives of all the cornerstones.	Revise Objective statements for the cornerstones presented in Appendices A-D as described in the comment. If it is necessary to specify "How To Meet This Objective", we suggest adding a section with exactly that heading in Appendices A-G.
6. General	The draft only references NUREG-1520. Should NUREG-1718 (MOX) also be referenced in the appropriate chapters when discussing cornerstones (chapter references are different for NUREG-1520 and NUREG-1718).	Reference NUREG-1718 where appropriate.
7. General	There appears to be overlap in attributes and inspectable areas. For example, configuration management of NCSEs could be under Criticality Analyses, Criticality Implementation, Criticality Operational Oversight, and Criticality Programmatic Oversight. Specifically, there appears to be overlap between Operational Safety, Occupational Radiation Safety, and Public Radiation Safety. The overlap is reinforced by the Appendices (e.g., operational safety verifies availability of IROFS...to protect worker and public; occupational safety scope includes IROFS in the ISA to prevent or mitigate radiological	Combine cornerstones, where possible, to minimize overlap.

	consequences; public radiation safety – licensees can maintain public protection by meeting applicable regulatory limits). One could interpret Operational Safety to be protection against events (10CFR70.61) and occupational radiation safety and public radiation safety are associated with normal operation protection (e.g., 10CFR20, ALARA); however, it is not clear this is what is intended. The concern is that a single issue could be associated with multiple cornerstones leading to a single minor issue linked to multiple attributes in multiple cornerstones.	
8. General	Some of the attributes appear to be repeating the License Application and ISA reviews.	The Cornerstone document attributes should clearly focus on operating facilities and not program and process commitments submitted in a license application.
9. Pg 10. Operational Safety	Clarify what is intended by "other safety controls" under Operational Safety ("verify availability and reliability of IROFS and <u>other safety controls</u> ")	Provide clarification
10. Pg 10. Emergency Preparedness	The stated objective for the Emergency Preparedness cornerstone to verify adequate measures to protect public health and safety" is beyond the scope of the regulatory requirements for fuel facilities.	Modify the objectives to be consistent with the stated objectives for the Emergency Preparedness Inspection Procedure 88050 " "provide assurance that the emergency preparedness program is being properly maintained and implemented in accordance with requirements and commitments in the license or certificate.
11. Pg. 11, Sec. 5.0, 1 st para.	With reference to Fig. 4, a simple dotted line with the words "cross-cutting areas" oversimplifies the content (e.g. examples such as CAP, Human performance, etc.) that will go into the RFCOP.	Have additional narrative as to how the Cross-Cutting areas will be used in the Oversight Process or provide some pointers to the SDP, or Performance Assessment Process as indicated in the Figure 1 of the Conceptual Diagram of Option 1 of the SECY.
12. P11. Sec. 5, 1 st para. (Applies to multiple	Are the proposed cross-cutting areas limited to "human performance, problem identification and resolution (PI&R),	A more thorough explanation of the Cross-Cutting areas would be beneficial

Appendices)	and safety conscious work environment" as noted in this paragraph?	
13. Pg. 11, Sec. 5.0	<p>The treatment of Cross-Cutting Areas is an important attribute of the overall RFCOP, yet it is limited to replicating the ROP without consideration towards the Fuel Cycle industry. This treatment is inadequate and deserves further dialogue. The deferral of this important aspect to reconsideration after the pilot is inappropriate.</p> <p>The staff goes on in the third paragraph and suggests potential inclusion of management of facility changes; design of structures, systems, and components (SSCs); selection of human actions appropriate to maintain safety; procurement and testing of components that are appropriate to meet design function, and feedback from monitoring and PI&R processes into design, procurement, and maintenance processes". This list of significant aspects needs careful consideration and is representative of processes and management measures that in some cases are inappropriate as Cross-Cutting areas.</p>	<p>The staff should consider further expansion of this important aspect within the draft and consider a workshop with stakeholders on this topic. Have additional narrative as to how the Cross-Cutting areas will be used in the Oversight Process or pointers to the SDP or Performance Assessment Process as indicated in the Figure 1 of the Conceptual Diagram of Option 1 of the SECY.</p>
14. Pg. 11, Section 5.0	<p>The meaning and use of Cross-Cutting Areas is unclear. In the ROP, CCAs are relevant to the ROP feature now known as Cross-Cutting Issues. It remains unclear how the staff would use CCAs in the RFCOP.</p>	<p>Staff should specify the intended use of CCAs, in addition to defining them as called for by other comments.</p>
15. Pg. A-1, Objective	<p>RE: "The objective of this cornerstone is to protect against the consequences of a nuclear criticality accident, preferably by prevention of the accident." The attributes appear to address prevention and learning, but consequences.</p>	<p>If the objective is actually prevention of criticality accidents, then say it plainly rather than with the equivocal "preferably by prevention". If the objective is to address consequences, then provide attributes that address consequences.</p>
16. Pg. A-3, c, Basis	<p>The statement "The criticality controls relied on to maintain subcriticality under normal and credible abnormal conditions must be designated as IROFS consistent with 10 CFR70.61(e)." is accurate. The critical wording</p>	<p>Rewording would provide further clarification.</p>

	<p>"consistent with 10 CFR70.61(e)" can be the important qualifier depending on one's interpretation. That is not all barriers included in the Nuclear Criticality Analysis on which the ISA summary is based are declared IROFS and don't need to be, the licensee has the duty to specify which barriers are chosen to be IROFS and treated as such.</p>	
17. Pg. A-4, a, Basis (This issue is not unique to this Cornerstone.)	<p>"This area is inspected for licensee compliance with 10 CFR 70.62 (d). Once management measures have been established, it is necessary to verify whether the licensee properly performs them." How will management measures be treated within the RFCOP and in the Cornerstones?</p>	<p>Provide information on how management measures will be consistently treated in all Cornerstones or a separate means, i.e., Cross-Cutting Area treatment, should be considered.</p>
18. Pg. A-7, b, Basis	<p>While industry does not argue with the statement "Prompt and effective restoration of the baseline safety basis is crucial for compliance with the performance requirements and maintenance of the double contingency principle". This area is also inspected to verify the licensee is identifying and correcting problems in accordance with the corrective action program license condition." The interpretation of these concepts into the practical Inspection Manual treatment must be developed.</p>	<p>Revise Inspection Manual Chapters to accurately capture this interpretation.</p>
19. Pg. A-7	<p>RE: "As no single occurrence must lead to an accident, such occurrences afford valuable opportunities to eliminate possible precursors before they can lead to an accident." It is impossible to eliminate all precursors, due to random variations in human and system performance.</p>	<p>Modify to read: "As no single occurrence must lead to an accident, such occurrences afford valuable opportunities to eliminate <u>learn from</u> such potential possible precursors before they can lead to an accident."</p>
20. Pg. A-8	<p>Figure A-1 identifies Attribute 5 as "Criticality Problem Identification and Resolution", as if criticality safety has unique PI&R features. Other cornerstones include a simpler, generic PI&R attribute that is identical from</p>	<p>If NRC insists on treating PI&R as an attribute of each cornerstone, instead of as a cross-cutting aspect, the PI&R attribute should be identical across all cornerstones (which further begs the question – why list it as an attribute of each</p>

	cornerstone to cornerstone. Why can't Criticality use the same generic PI&R attribute description?	cornerstone?).
21. Appendix B Operational Safety Cornerstone (General)	<p>This Cornerstone has the most significant changes from the March version provide to industry. It also brings to bear the overall treatment concerns regarding the means of including Management Measures now a separate Attribute, Cross Cutting areas, and P&IR. The Attribute 4 now entitled Performance of Management Measures while including some of the Management Measures as defined in 10 CFR 70.4 also introduces the areas of NPH, such as Fire, Flood, Cold or Hot Weather as well as additional second order challenges such as Offsite and Onsite power reliability and "other natural phenomena..." Yet the Management Measure of Configuration Control gets listed as its own Attribute. Cross Cutting Areas of Human Performance and Training are now considered Attributes. Additionally "Human Performance" gets double billing under Attribute 2 & 3 leading to inconsistent treatment and confusion. Also the concept of "Procedure Quality" is important yet this Attribute/Inspectable Area is clearly subjective and difficult to measure.</p> <p>This Cornerstone appears to cover the scope of the ISA treatment of SSC's yet needs noteworthy revision to add clarity and careful treatment of topics so as to not have redundancy or inconsistent treatment with other Cornerstones</p>	The staff should have a dialogue on this Cornerstone with the stakeholders.
22. Pg. B-1&2, Attribute 1, Inspectable Areas a. & b.	The use of the term "Operational" in the titles of "Design Development" & "Implementation" denotes a specific scope or perspective that is hard to define and perhaps too restrictive. The focus should be on the control of the design and its implementation function to be on the safety	Consider reverting to characterization used in the version discussed during the March 2015 public meeting.

	attributes not necessarily on its operational or some may say its process attributes.	
23. Pg. B-3, Attribute 3	The use of the specific characteristics in the examples "elevated hydrogen fluoride concentrations in air, uranium hexafluoride (UF ₆) in air, or the weight of a UF ₆ cylinder" seem out of place. This level of detail is not necessary. Response to alarms, procedure use and adherence, IROFS knowledge, etc. would be more appropriate.	Suggest deleting this level of detail.
24. Pg. B-3, Attribute 3	RE: "Human performance during initial training and re-qualification provide an indication of expected staff performance." What value does this statement add? The meaning of the word "expected" is unclear here (e.g., does it mean "minimum acceptable standard of performance" or "predicted"?).	Delete or clarify this sentence.
25. Pg. D-4, a, Scope	The statement "Inspection activities verify the licensee appropriately corrects identified radiation worker performance events, prevents their reoccurrence, and performs trending to identify underlying performance issues. Of special concern are maintenance activities when contract staff, having varying levels of experience, performs radiologically significant work." appears out of place in this cornerstone. The focus on 'worker performance' and 'contract' staff may be appropriate if in another Cornerstones under HP. Also the phrase "performs radiologically significant work" can infer performance that my attribute to worker or contractor dose vs. public dose which should be treated under the Occupational Dose Cornerstone.	Reconsider these treatments within this Cornerstone, move to Occupational doses Cornerstone

26. Pg. D-4, b, Basis	The reference to "subsection II of Appendix G to 10 CFR Part 20" appears out of place as this reference applies to a waste generator "certification" of a waste transports manifest contents".	Delete or correct reference.
27. Appendix E	10CFR70 includes criteria for determining if an emergency plan is required.	Provide clarification in the cornerstone that some attributes may not be applicable to certain licensees.
28. Appendix E and Figure E-1	Treatment of P&IR as noted above. Also the use of the acronym CAP is not needed on the figure after the March version.	See above suggestions regarding P&IR Delete note on CAP from figure
29. Pg. E-2	Why is Procedure Quality called out as a separate Inspectable Area in this cornerstone but not all? Why is the scope of this Inspectable Area defined so differently here compared to the definition in the Operational Safety Cornerstone?	Provide clarification
30. Pg. F-1, Objective	Numbering/format problem – "3&4"vs, 1&2	Correct numbering
31. Appendix F, Figure F-1	Why is the structure of the Inspectable Areas here so different than the structure presented in other cornerstones? For example, five of six security attributes show Security Plans and Procedures as an inspectable area of each. In other cornerstones, Procedure Quality is called out as its own inspectable area. Similarly, training is identified as an inspectable area of two attributes in Security, but addressed as part of a Human Performance attribute in other cornerstones.	Provide clarification
32. Appendices F & G	For security and MC&A, link objectives to regulatory requirements that are consistent with 10CFR 73, 10CFR 74 and 10CFR 95).	Provide clear linkage between regulations and the objectives.

<p>33. Pg. G-4, c, Scope</p>	<p>Remove "the clarity of" and "to determine if it results from inadequate, deficient, or unclear procedures" from this section. While industry agrees that procedures should be clear, clarity is a matter of opinion which if inspected will result in more disagreements between licensees and NRC inspectors simply because of differences in opinions that have no regulatory basis. Procedure clarity is not regulated and therefore should not be inspected.</p>	<p>Modify to read: Inspection activities in this area focus on the clarity of plant procedures with regard to MC&A-related activities. Inspection activities include observation of plant staff performance during MC&A-related activities and walkthroughs. Inspectors evaluate any deficient performance to determine if it results from inadequate, deficient, or unclear procedures. Inspection activities also include an evaluation of whether the procedure and activities observed result in compliance with regulations and license requirements. Additional inspection activities include review of selected changes to procedures to determine whether the procedures provide adequate guidance to plant staff to meet NRC requirements.</p>
<p>34. Pg. G-5, c, Basis</p>	<p>Remove "clear and" and "Unclear procedures could result in errors that lead to the failure to control and account for material." While industry agrees that procedures should be clear, clarity is a matter of opinion which if inspected will result in more disagreements between licensees and NRC inspectors simply because of differences in opinions that have no regulatory basis. Procedure clarity is not regulated and therefore should not be inspected.</p>	<p>Modify to read: MC&A procedures are required by 10 CFR 74.31(c)(1), 74.33(c)(1), 74.43(b)(3), and 74.59(b)(2). Appropriate licensee procedures entail coverage of all MC&A functions in a clear and technically correct manner. Measurement system procedures influence the capability of adequately assigning appropriate quantities of SNM to processing units and items. Inventory and item control procedures are essential to preventing the loss, theft, or diversion of material. Alarm and loss indicator response procedures are important to adequately assess the indicators, determine if a loss actually occurred, and recover from said loss. Unclear procedures could result in errors that lead to the failure to control and account for material.</p>