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April 10, 2014

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

Subject: Comments on Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants, NSIR/DPR-ISG-02 (*Federal Register Vol. 79, 13333*, dated March 10, 2014; Docket ID NRC-2014-0002)

Project Number: 689

Dear Ms. Bladey:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)¹ appreciates the opportunity to provide comments on draft NRC Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants, NSIR/DPR-ISG-02, published in the subject Federal Register notice.

The NEI Emergency Preparedness Decommissioning Task Force met with the NRC Staff on March 6th, 2014 to discuss the ISG in advance of comment submittal. This meeting produced valuable information that helped inform the development of these ISG comments.

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

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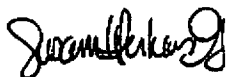
Ms. Cindy K. Bladey
April 10, 2014
Page 2

Our detailed comments on the guidance provided in the ISG are included in the attachment to this letter. In addition, there are several issues that are not addressed in the ISG, which require further consideration. First, the ISG only provides exemption guidance on the time period beginning approximately 18 months after cessation of operation. Additional guidance should be developed covering the interim period immediately after cessation of operations (i.e., "pre-exemption guidance"), as well as the timeframe after all fuel is placed in an Independent Spent Fuel Storage Installation (ISFSI) (i.e., "ISFSI-only guidance"). NEI and the industry look forward to further addressing pre-exemption guidance in the near term, and ISFSI-only guidance over the longer term. NEI and the industry discussed these issues with the NRC in a public meeting on April 3rd. In that meeting, the industry provided examples of pre-exemption guidance issues (e.g., staffing considerations, equipment abandonment, Emergency Action Levels and ERDS). Various methods to address these issues were discussed.

Also, the ISG does not address how the NRC will consider changes to the licensing basis for plants entering decommissioning that occur by operation of 10 CFR 50.82(a)(2). Specifically, 10 CFR 50.82(a)(2) provides that, upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, a part 50 licensee is no longer authorized to operate the reactor or place fuel in the reactor vessel. NEI continues to believe that this fundamental change in the licensing basis should be considered when evaluating whether changes to emergency plans require prior NRC approval.

Thank you in advance for your consideration of our comments. If you have any questions or require additional information, please contact Martin Hug at (202) 739-8129; mth@nei.org.

Sincerely,



Susan Perkins-Grew

Attachments

c: Mr. Joseph D. Anderson, NSIR/DPR/DDEP/ORLOB, NRC
Mr. Robert J. Lewis, NSIR/DPR, NRC
Mr. Scott A. Morris, NSIR/DPR, NRC
NRC Document Control Desk

Industry Comments on Draft NSIR/DPR-ISG-02

| # | Page Paragraph | Section | Comment |
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| 1. | Page 3, Paragraph 3, Sentence 2 | 2.0 Scope | <p>NEI recommends the following markup of sentence one :</p> <p>This guidance is only applicable to a nuclear power <u>plant licensee</u> reactor that has notified the NRC that it has permanently ceased <u>reactor</u> operation in accordance with 10 CFR 50.82(a)(1)(i), has certified permanent removal of fuel from the reactor vessel under 10 CFR 50.82(a)(1)(ii), is storing spent fuel in a spent fuel pool (SFP) and is not located on the site of an operating nuclear power reactor.</p> <p>Basis for markup: Licensees conduct licensing actions.</p> |
| 2. | Page 3, Paragraph 4, Sentence 4 | 3.0 Background | <p>NEI recommends the following markup of sentence four:</p> <p>Because of the lower comparative risk from a decommissioning power reactor, licensees typically <u>request</u> make a case for an exemption on the basis that <u>portions</u> the application of the regulation in the particular circumstance decommissioning plants is <u>are</u> not necessary to achieve the underlying purpose of the rule.</p> <p>Basis for markup: Re-worded for clarity.</p> |

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| 3. | Page 7, Paragraph 2, Sentence 2 | 5.0 Evaluation of Exemptions to EP Regulations | <p>NEI recommends removal of sentence two:</p> <p>Historically, exemption requests have included analyses of expended resin fires and direct radiation exposure due to a drained SFP.</p> <p>Basis for markup:</p> <p>This statement could be construed as a requirement to perform an analysis of expended resin fires and direct radiation exposure due to a drained Spent Fuel Pool (SFP). Industry discussed this statement at the March 6th public meeting and, based on these discussions, NRC agreed the statement is historical and should not imply a requirement for forward seeking exception requests. NEI therefore recommends removal of the sentence.</p> |
| 4. | Page 7, Paragraph 4, Sentence 2 | 5.0 Evaluation of Exemptions to EP Regulations | <p>NEI requests additional information or clarification:</p> <p>The ISG states: "The staff should ensure that the licensee has addressed these IDCs and SDAs in the final safety analysis report for the decommissioning site if they are storing fuel in a SFP." The ISG should specify what specific information from the IDCs and SDAs are required to be placed in the SAR.</p> |

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| 5. | Page 7, Following Paragraph 4, | 5.0 Evaluation of Exemptions to EP Regulations | <p>NEI recommends addition of the following sentences after paragraph four:</p> <p><u>Approval of the 10CFR50.47 and Appendix E exemption request allows submittal for NRC approval of the licensee's Permanently Defueled Emergency Plan Licensee's Amendment Request and the licensee's Permanently Defueled EALs/ICs.</u></p> <p><u>Exemptions from EP requirements may be approved when the specific site analyses show that at least ten hours are available from a point in the partial drain down event where cooling of the spent fuel is not effective until the hottest fuel assembly reaches 900°C.</u></p> <p>Basis for markup:</p> <p>The first addition clarifies the reason that a licensee files the exemption request.</p> <p>The second addition directs when the licensee may submit an exemption request. NEI modeled the language from NRC language used on page eight, Table 1, Exemption For Consideration.</p> |
| 6. | Page 8, Column 2 Paragraph 1, Last Sentence | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup last sentence of the paragraph:</p> <p>Because ten hours allows sufficient time to initiate mitigative actions to prevent a zirconium fire in the SFP or to initiate ad hoc offsite protective actions <u>in accordance with an all hazard plan</u>, offsite EP <u>radiological emergency plans</u> are not necessary for these permanently defueled nuclear power plant licensees.</p> <p>Basis for markup:</p> <p>State and local governments initiate protective actions in accordance with their all hazard plans.</p> |

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| 7. | Page 8, Column 2, Paragraph 2, Following Sentence 1 | Table 1, Exemptions for Consideration | <p>NEI recommends addition of following sentence after sentence one: See basis for 50.47(b).</p> <p><u>Requirement is applicable to the State and the local government in which the nuclear facility is located. State and local government response will be in accordance with each agency's all hazard plans and procedures.</u></p> <p>Basis for markup: Clarifies who the responsible agencies are and how the primary responsibility is assigned (e.g., all hazard plan).</p> |
| 8. | Page 9, Column 2, Paragraph 3, Sentence 3 | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup of sentence three: If 10 CFR 50.54(hh)(2) type of mitigation measures are successful, releases could only occur during the first several days after the fuel came is removed from out of the reactor.</p> <p>Basis for markup: Inclusion of the 10 CFR 50.54(hh)(2) example may inadvertently lead the NRC reviewer to the mistaken belief that the 10 CFR 50.54(hh)(2) requirement is applicable.</p> |
| 9. | Page 9, Column 2, After Paragraph 4 | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph four: <u>Requirement is applicable to the State and the local government in which the nuclear power plant is located.</u></p> <p>Basis for markup: The addition clarifies which State and local agencies require notification.</p> |

| # | <u>Page Paragraph</u> | <u>Section</u> | <u>Comment</u> |
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| 10. | Page 11, Column 1, Paragraph 2 | Table 1, Exemptions for Consideration | <p>NEI recommends addition of the following exemption :</p> <p>10 CFR 50.72(a)(4), Emergency Response Data System (ERDS)</p> <p>Basis for markup:</p> <p>10 CFR 50.72(a)(4), Emergency Response Data System (ERDS) states in part "The licensee shall activate the Emergency Response Data System (ERDS) as soon as possible but not later than one hour after declaring an Emergency Class of alert, site area emergency, or general emergency."</p> <p>Appendix E to Part 50—Emergency Planning and Preparedness for Production and Utilization Facilities, Section E.VI.2 states in part that "Except for Big Rock Point and all nuclear power facilities that are shut down permanently or indefinitely, onsite hardware shall be provided at each unit by the licensee to interface with the NRC receiving system."</p> <p>During the March 6th public meeting, NRC staff stated that the 10 CFR 50.72(a)(4) regulation was not added to Table 1 as an exemption because the requirement in the Appendix E regulation already exempts the ERDS capability at permanently shut down nuclear power plants (NPP). Industry stated that some licensees were asked to maintain the ERDS activation capability even though the ERDS capability is not required by regulation. During the meeting NRC agreed to add a 10 CFR 50.72(a)(4) ERDS exemption to Table 1. Addition of the exemption to the table provides licensee regulatory assurance that elimination of the ERDS activation capability is the correct action.</p> |
| 11. | Page 11, Column 2, Paragraph 3 | Table 1, Exemptions for Consideration | <p>NEI recommends addition of the following:</p> <p>The regulation refers to "facilities", but multiple facilities are not required, given that decommissioned NPP maintain one emergency facility, namely the control room.</p> <p>Basis for markup:</p> <p>See markup of 10 CFR Part 50, Appendix E, section IV.E</p> |

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| 12. | Page 14, Column 2, Paragraph 2, After Sentence 1 | Table 1, Exemptions for Consideration | <p>NEI recommends the following reference after sentence one:</p> <p>...risk of emergency necessitating offsite assistance. (Refer to 10 CFR 50.47(b) Basis for Change)</p> <p>Basis for markup:</p> <p>NEI recommends adding this Basis for Change to support the exemption.</p> |
| 13. | Page 15, Column 2, Paragraph 2, Sentence 1 | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup of sentence two:</p> <p>EALs are to be consistent with Appendix 1 (if applicable) and Appendix C of NEI 99-01, Revision 6, "Methodology for Development of Emergency Action Levels" <u>with the exception that ICs PD-HU1 and PD-HA1 are not implemented.</u></p> <p>Basis for markup:</p> <p>Since NRC staff exempted the "for hostile action" event in column one, NEI suggests a corresponding addition to the basis in column two.</p> |
| 14. | Page 15, Column 2, Paragraph 3 | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph 3:</p> <p>"...and 50.47(b)(10)."</p> <p>Basis for markup:</p> <p>Additional reference added to support exemption.</p> |
| 15. | Page 16, Column 2, Paragraph 3 | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup of the third paragraph:</p> <p>EALs should to be developed with the guidance provided in NEI 99-01, Revision 6 with the following exception applied to example emergency action level two:</p> <p>2. Dose assessment using actual meteorology indicates doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond (site-specific dose receptor point).</p> <p>Basis for markup:</p> <p>NRC exempted the capability for offsite dose assessment from Section IV.A.4.</p> |

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| 16. | Page 16, Column 2, After Paragraph 5 | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph five: <u>Requirement is applicable to the State and the local government in which the nuclear power plant is located.</u></p> <p>Basis for markup: The addition clarifies which State and local agencies require notification.</p> |
| 17. | Page 17, Column 1, Paragraph 3, Sentence 1 | Table 1, Exemptions for Consideration | <p>NEI recommends the following deletion from sentence 1: Within 15 minutes</p> <p>Basis for markup: In the ISG draft "15" was deleted from the regulatory text leaving "A licensee shall have the capability to notify responsible State and local governmental agencies within minutes after declaring an emergency. The phrase "within minutes" is vague and could be construed by a NRC reviewer to represent a time period as brief as 2 minutes. The next comment suggests a solution.</p> |
| 18. | Page 17, Column 2, Paragraph , Sentence 2 | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition of the second sentence: <u>A specific notification time should be provided and justified, as part of the exemption request (e.g., a licensee shall have the capability to notify responsible State and local governmental agencies as soon as possible, not to exceed 60 minutes).</u></p> <p>Basis for markup: The above example clarifies acceptable criteria for an NRC reviewer to evaluate notification timeliness criteria provided by the licensee.</p> |

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| 19. | Page 17, Column 2, after Paragraph 3, | Table 1, Exemptions for Consideration | <p>NEI recommends the following additional text after paragraph 3:</p> <p>The responsible State and local governmental agencies are the agencies whose jurisdictions include the area where the nuclear power plant is located.</p> <p>Basis for markup:</p> <p>Provides clarity as to what agencies are responsible.</p> |
| 20. | Page 18, Column 2, After Paragraph 2, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph 2:</p> <p>See basis for 50.47(b)(3).</p> <p>Basis for markup:</p> <p>Additional reference added to support exemption.</p> |
| 21. | Page 19, Column 2, After Paragraph 1, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph 1:</p> <p>See basis for 50.47(b)(3).</p> <p>Basis for markup:</p> <p>Additional reference added to support exemption.</p> |
| 22. | Page 19, Column 2, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition to the basis:</p> <p><u>Since the probability of a large offsite radiological release at a decommissioning power reactor storing irradiated fuel in the SFP is lower than the risk of a large offsite radiological release from an operating power reactor and its SFP, offsite agency response will not be required at an emergency operations facility (EOF) and joint information center (JIC). This is based on the consideration of initiating reactor events associated with normal and abnormal operations, design-basis accidents, and certain beyond design-basis accidents applicable to a decommissioning site due to the reduced staff and the minimal expected offsite response required.</u></p> <p>Basis for markup:</p> <p>NEI used the probability argument from section 3.0 Background to justify exemption of the EOF and JIC.</p> |

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| 23. | Page 20, Column 2, Paragraph 1, Sentence 1 | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup of sentence one: See basis for 50.47(b)(3)-IV.E.8.a(i)</p> <p>Basis for markup: Added reference to the exemption of the EOF. 50.47(B)(3) is referenced in the exemption basis.</p> |
| 24. | Page 21, Column 2, After Paragraph 8, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition of text after paragraph eight: Local news media personnel no longer need radiological orientation training since they will not be called upon to respond to a radiological event. The term "Civil Defense" is no longer commonly used; references to this term in the examples provided in the regulation are therefore not needed.</p> <p>Basis for markup: The added paragraph supports the exemption of local news media and civil defense.</p> |
| 25. | Page 22, Column 2, Paragraph 1, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition to the end of paragraph 1: <u>..and therefore requires no testing of offsite emergency preparedness in a full participation exercise.</u></p> <p>Basis for markup: Provides additional clarity on what is subject to testing.</p> |
| 26. | Page 23, Column 1, Paragraph 1, Last Sentenced | Table 1, Exemptions for Consideration | <p>NEI recommends the following markup of the last sentence: ... the drills may focus on the onsite exercise training objectives</p> <p>Basis for markup: NEI removed "exercise" so that the requirement is not confused with an offsite full scale exercise.</p> |
| 27. | Page 23, Column 2, Paragraph 4 | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition to paragraph 4: See basis for sections <u>IV.1 and IV.F.2a.</u></p> <p>Basis for markup: Added additional reference to the hostile action exemption.</p> |

| # | <u>Page Paragraph</u> | <u>Section</u> | <u>Comment</u> |
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| 28. | Page 24, Column 2, After Paragraph 3, | Table 1, Exemptions for Consideration | <p>NEI recommends the following addition after paragraph 3:</p> <p>The responsible State and local governmental agencies are the agencies whose jurisdictions include where the nuclear power plant is located.</p> <p>Basis for markup:</p> <p>Statement provides clarity as to what agencies are responsible.</p> |
| 29. | Page 26, Column 1, First Paragraph, First Sentence, | Table 1, Exemptions for Consideration | <p>NEI recommends the following change to the first sentence:</p> <p>The word "justification" should be struck as the rest of the text has been.</p> <p>Basis for markup:</p> <p>Typographical</p> |
| 30. | Page 26, Column 2, Paragraph 1 | Table 1, Exemptions for Consideration | <p>NEI recommends the following change to paragraph one:</p> <p>See basis for section IV.E.d.1</p> <p>Basis for markup:</p> <p>Typographical</p> |
| 31. | Page 29 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI provides the following comment and recommendation:</p> <p>The Attachment provides guidance to the NRC reviewer on the acceptability of the decommissioned emergency plan. It is not clear if the guidance replaces the format and element requirements of an emergency plan developed to meet the guidance contained in NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."</p> <p>NEI recommends that NEI develop and NRC endorse a permanently defuel emergency plan template. The template will provide clarity on contents of the emergency plan.</p> |

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| 32. | Page 29, Paragraph 2 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup to paragraph 2:</p> <p>Applicable Regulation Regulation(s): 10 CFR 50.47(b)(6) and (8) and (9); Appendix E to 10 CFR Part 50, Section IV.E.</p> <p>Basis for markup:</p> <p>Typographical correction and 10 CFR 50.47(b)(9) is exempted.</p> |
| 33. | Page 29, Paragraph 6, Sentence 2 and 3 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup to sentences two and three:</p> <p>The plan should describe the principal and alternate location(s) from which emergency control and assessment activities will occur. At least one location should be habitable during any emergency.</p> <p>Basis for markup:</p> <p>Per the exemption of Appendix E to 10 CFR Part, IV.E, alternate facilities are exempt.</p> |
| 34. | Page 29, Paragraph 7 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup to sentences two and three:</p> <p>The emergency plan should include the means for identifying a command center to be used in an emergency. The criteria for evacuating a command center and re-establishing control from an alternate location should also be described. The plan should identify one or more locations from which licensee emergency workers would be dispatched to perform radiation surveys, damage assessment, emergency repair, or other mitigating tasks.</p> <p>Basis for markup:</p> <p>Per the exemption of Appendix E to 10 CFR Part, IV.E, alternate facilities are exempt. Additional requirements are not required per regulations.</p> |

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| 35. | Page 29, Last Sentence | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion of the last sentence: Potassium iodide</p> <p>Basis for markup: In the unlikely event of a SFP accident, the iodine isotope would no longer be present at the time the NPP implements the exemption. Therefore potassium iodide is no longer required for worker protection. See the exemption of 10 CFR 50.47(b)(10).</p> |

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| 36. | Page 30, Paragraph 1 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup to paragraph one:</p> <p>The emergency plan should include criteria for issuing respiratory equipment, locations of emergency equipment and supplies, means for distributing these items and criteria for dispensing potassium iodide, if required. <u>The emergency plan should include a description of emergency equipment and available emergency supplies.</u></p> <p>The emergency plan should also include inventory lists indicating the emergency equipment and supplies provided at specified locations. The plan should describe the primary and alternate onsite and offsite communication systems that would be used to transmit and receive information throughout the emergency. A backup means of offsite communication to a commercial telephone should be provided for notification of emergencies and requests for assistance.</p> <p>Basis for markup:</p> <p>10 CFR 50.47(b)(8) states, "Adequate emergency facilities and equipment to support the emergency response are provided and maintained." The regulation does not require licensees to list storage locations or content inventories. Equipment inventory and storage flexibility needs to be maintained as facility decommissioning proceeds. Equipment storage locations and inventory should not be subject to the emergency plan change process.</p> <p>Per the exemption of Appendix E to 10 CFR Part 50, IV. Back-up communications is exempt from regulation.</p> |

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| 37. | Page 30, Paragraph 6, Sentence 5 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletions in sentence five:</p> <p>The major responsibility of the onshift staff, while there is fuel in the SFP, is to maintain SFP cooling.</p> <p>Basis for markup:</p> <p>The document scope includes the time when spent fuel is in the SFP.</p> |
| 38. | Page 30, Paragraph 9, Sentence 3 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence three:</p> <p>Personnel with the responsibility for event classification, onsite protective action decisions, and prompt notification of State and local government authorities and the NRC should be identified.</p> <p>Basis for markup:</p> <p>The descriptive word "prompt" is not needed in order to specify notification responsibility.</p> |
| 39. | Page 31, Paragraph 2, Sentence 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion:</p> <p>Typically, a minimum staff to augment the minimum onshift staff is manned within an hour of declaration of an Alert with a goal of total augmentation within two hours.</p> <p>Basis for markup:</p> <p>Guidance should not prescribe a specific augmentation time. Minimum augmentation time should be site-specific and commensurate with applicable SFP accident analyses.</p> |
| 40. | Page 31, Paragraph 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion:</p> <p>The emergency plan should designate the position of the person, and alternate(s), who has principal responsibility for implementing and directing the emergency response.</p> <p>Basis for markup:</p> <p>Identifying alternates to fulfill positions is not required per regulations.</p> |

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| 41. | Page 31, Paragraph 9 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the deletion of paragraph nine: communication with parties requesting information regarding the event</p> <p>Basis for markup: Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPPs and is not necessary to ensure compliance with existing regulation.</p> |
| 42. | Page 31, Paragraph 12 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of paragraph 12: The emergency plan should also describe this person's authority to delegate responsibilities and the individuals who may be delegated certain emergency responsibilities. Non-delegable responsibilities of this position should be described in the emergency plan.</p> <p>Basis for markup: NEI believes NRC is describing non-delegable responsibilities. The above edit provides a succinct description of the delegation requirement.</p> |
| 43. | Page 31, Paragraph 14, Sentence 2 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion of the second sentence: The plan should also describe strategies for staffing these positions if the emergency lasts for an extended period of time.</p> <p>Basis for markup Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPPs and is not necessary to ensure compliance with existing regulation.</p> |

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| 44. | Page 31, Paragraph 14, | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of the 14 paragraph: onsite protective measures, including personnel evacuation and accountability,</p> <p>Basis for markup: Evacuation and accountability are implemented at the Site Area Emergency classification level and higher. Only the Alert classification level can be reached at a decommissioned NPP.</p> |
| 45. | Page 32, Paragraph 2, | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion in paragraph 2: Record-keeping</p> <p>Basis for markup: Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPPs and is not necessary to ensure compliance with existing regulation.</p> |
| 46. | Page 32, Paragraph 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following addition to paragraph four: Criticality safety assessment</p> <p>Basis for markup: This assessment function is not required because the spent fuel stored in the SFP cannot go critical.</p> |
| 47. | Page 32, Section 2.2.6 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion in Section 2.2.6, Emergency Response Records:</p> <p>Basis for markup: Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPPs and is not necessary to ensure compliance with existing regulation.</p> |

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| 48. | Page 33, Paragraph 2, Sentence 2 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence two:</p> <p>The agencies' and/or organization's location and specific response capabilities in terms of personnel and resources should be described.</p> <p>Basis for markup:</p> <p>NRC EPFAQ 2013-003 (ML13262A173) provides examples of offsite response organization programmatic descriptions. The descriptions did not include the number of personnel, types of resources or the organizational location.</p> |
| 49. | Page 33, Paragraph 2, Sentence 3 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence three:</p> <p>The plan should include a description of the onsite and offsite services that support emergency response operations, including the following:</p> <p>Basis for markup:</p> <p>Onsite services are described in section 2.2.5.</p> |
| 50. | Page 33, Paragraph 3 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion of paragraph three from Section 2.2.7 and inclusion under Section 2.2.5:</p> <p>decontamination facilities</p> <p>Basis for markup:</p> <p>Since all events are restricted to the onsite environs, the need for decontamination is only a site requirement.</p> |
| 51. | Page 33, Paragraph 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of paragraph four:</p> <p>Medical treatment facilityies</p> <p>Basis for markup:</p> <p>Using the term facilities instead of facility would cause the NRC reviewer to require more than one facility. Additional resources are typically identified in the NPP mutual aid agreements.</p> |

| # | Page Paragraph | Section | Comment |
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| 52. | Page 33, Paragraph 5 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following addition to paragraph five: First aid personnel</p> <p>Basis for markup: The offsite first aid requirement is provided by the ambulance service and need not be separately specified.</p> |
| 53. | Page 33, Paragraph 10, Sentence 3 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence three: The means to promptly <u>notify as soon as possible but within one hour</u> State and local government authorities and the NRC should be described.</p> <p>Basis for markup: The above statement provides the NRC reviewer with defined notification criteria.</p> |
| 54. | Page 33, Paragraph 12, Sentence 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends deletion of sentence four: A standard reporting checklist should be included in the plan to facilitate timely notification for each postulated accident.</p> <p>Basis for markup: Section 2.2.9 adequately describes the programmatic requirements for notification. Checklists belong only in implementing procedures.</p> |
| 55. | Page 33, Paragraph 13 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of the title of section 3.0: Mitigation of Consequences Radiological Emergency Support Requirements</p> <p>Basis for markup: The revised title aligns with language used in planning standard eight.</p> |
| 56. | Page 33, Paragraph 14 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup: Applicable Regulation(s): 10 CFR 50.47(b)(3), (8) and (10), Appendix E to 10 CFR Part 50, Section IV.B</p> <p>Basis for markup: (b)(10) is completely exempted</p> |

| # | <u>Page Paragraph</u> | <u>Section</u> | <u>Comment</u> |
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| 57. | Page 34, Sections 3.1 and 3.2 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the markup of the ISG's Attachment 1, Sections 3.1 and 3.2 provided in NEI's comments, Attachment 2. Attachment 2 also provides a basis for each markup.</p> |
| 58. | Page 34, Paragraph 9, Sentence 1 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence one:</p> <p>The emergency plan should describe the nature of onsite protective actions, criteria for implementing those actions, the areas involved, and the procedures for notification to potentially affected persons.</p> <p>Basis for markup:</p> <p>The emergency plan should contain a programmatic statement of how personnel are notified and not the actual procedure.</p> |
| 59. | Page 35, Paragraph 9, | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the markup of paragraph nine:</p> <p>The emergency plan should include methods for onsite personnel evacuation and accountability. <u>The emergency plan should include methods for protection of onsite personnel.</u> This could include:</p> <p>Basis for markup:</p> <p>Evacuation and accountability are not required for an Alert.</p> |
| 60. | Page 35, Paragraph 14 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the markup of the following sentence:</p> <p>locations of onsite and offsite assembly areas are <u>provided</u></p> <p>Basis for markup:</p> <p>A commitment to provide assembly areas is appropriate. Due to the nature of the decommissioning process, locations over time may change.</p> |

| # | <u>Page Paragraph</u> | <u>Section</u> | <u>Comment</u> |
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| 61. | Page 35, Paragraph 17 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following addition of paragraph 17:</p> <p>The capability criteria for command center and assembly area evacuation re-establishment at an alternate location</p> <p>Basis for markup:</p> <p>Criteria for command center and assembly area evacuation may change over the time of decommissioning depending on the location of the facility and construction of the facility. Strict criteria, therefore, should not be provided.</p> |
| 62. | Page 35, Paragraph 20, Sentence 1 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence one:</p> <p>The emergency plan should describe arrangements made for hospital and medical services, both primary and backup, and their capabilities to evaluate and treat contaminated, injured persons, and injuries involving radiation, radioactive materials, and other hazardous materials used in conjunction with radioactive materials.</p> <p>Basis for markup:</p> <p>Mutual aid agreements normally identify backup capabilities.</p> |
| 63. | Page 35, Paragraph 20, Sentence 4 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion of sentence four:</p> <p>The plan should describe how chemicals or hazardous materials stored onsite may impact transporting injured personnel.</p> <p>Basis for markup:</p> <p>Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPP and is not necessary to ensure compliance with existing regulation.</p> |

| # | Page Paragraph | Section | Comment |
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| 64. | Page 38, Paragraph 8, Sentence 1 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following markup of sentence one:</p> <p>The emergency plan should describe the provisions for periodic drills and exercises. <u>The emergency plan may contain a conditional statement that communications checks with offsite agencies, and radiological/health physics, medical, and fire drills should be performed at the interval established by section IV.E.9.B of Appendix E to 10 CFR 50 while fuel is in the SFP and by 10 CFR 72.32(a) or (b) once all fuel is in the ISFSI.</u></p> <p>Basis for markup:</p> <p>The markup addresses the difference in regulatory requirements between fuel in the SFP and fuel in an ISFSI.</p> |
| 65. | Page 38, Paragraph 15 and page 39, Paragraph 2 | Attachment 1, Guidance for Evaluation of Decommissioned Emergency Plans | <p>NEI recommends the following deletion of paragraphs 15 on page 38 and two on page 39:</p> <p>The emergency plan should describe the measures that will be taken to ensure that offsite response organizations maintain an awareness of their respective roles in an emergency and have the necessary equipment, supplies and periodic training to carry out their emergency response functions. Any provisions to suspend security or safeguards measures for site access during an emergency should be described.</p> <p>The licensee should offer to meet at least annually with each offsite response organization providing onsite support as identified in the licensee's emergency plan, to review items of mutual interest, including relevant changes to the emergency plan. The licensee should discuss the emergency action level scheme, notification procedures, and overall response coordination process during these meetings.</p> <p>Basis for markup:</p> <p>Inclusion of this programmatic requirement in a decommissioned emergency plan would unnecessarily expand upon existing requirements applicable to operating NPPs and is not necessary to ensure compliance with existing regulation.</p> |

Markup of Attachment 1, Section 3.1 and 3.2 and Basis for Markup

NEI recommends the following markup of Sections 3.1 and 3.2 (note: the superscript in the markup refers the reader to the appropriate basis for the markup in the basis section):

3.1. Background and Discussion

Sites which hold spent fuel susceptible to zirconium fires have been exempted from some EP regulations based on their analysis showing the ability to perform actions to prevent such events or to take offsite protective actions where¹ necessary. A site-specific SFP analysis should show that there is sufficient time from the loss of SFP inventory until the onset of a zirconium fire to take the actions to mitigate the inventory loss ~~and prevent a zirconium fire~~² and to take offsite protective actions in accordance with a State and local agency all hazards plan³. Specifically, a time of at least ten hours from the loss of SFP inventory, without air cooling, to a temperature of 900 degrees C should be one conclusion from this site specific analysis. ~~The emergency plan~~⁴ ~~should describe the equipment, personnel, resources, such as water supplies, procedures and strategies in place for movement of any necessary portable equipment, initial and continuing training, that will be relied upon for prevention of a zirconium fire in the SFP. These mitigative strategies may have been developed as part of a response to or the result of NRC Order on Mitigative Strategies (EA-12-049). A time estimate for completing necessary actions to preclude the zirconium fire should be made. Mitigative strategies should be discussed. For example, the licensee may describe the equipment, personnel, resources, such as water supplies, processes in place for movement of any necessary portable equipment that will be relied upon for prevention of a zirconium fire in the SFP.~~⁵

3.2. Guidance

3.2.1 Limiting Actions

The licensee⁴ ~~emergency plan~~ should describe the means and equipment provided for limiting the consequences of each type of accident identified in the plan. ~~The plan should~~ description should⁴ address the actions and systems in place to reduce the magnitude and/or reduce the effect of a radioactive or hazardous material release that has occurred. ~~The plan~~ description⁴ should include actions to be taken to limit and mitigate the consequences to the public and workers. ~~Means for limiting releases could include the following:~~⁶

- ~~sprinkler systems and other fire suppression systems~~
- ~~fire detection systems~~
- ~~firefighting capabilities~~
- ~~filtration or holdup systems~~
- ~~use of water sprays on airborne releases of radioactive material~~

- ~~• automatic shut off of process or ventilation flow~~
- ~~• use of fire resistant building materials~~

~~If portable equipment is used to prevent or mitigate events, the emergency plan should describe the procedures, storage and maintainability of that equipment.~~

~~Based upon the type of emergency, the emergency plan should describe the criteria for the shutdown of systems or the facility and any steps to be taken to ensure a safe, orderly shutdown of fuel handling operations and the approximate time required to complete the shutdown.~~

Basis for the above markup:

1. Typographical
2. The adiabatic analysis does not conclude a zirconium fire won't occur. It calculates decay time necessary to demonstrate at least 10 hours to 900 degrees C, which allows time to initiate onsite mitigating actions and ad hoc offsite actions.
3. The additional text clarifies that a State or local agency's all hazards plan is used instead of a radiological emergency plan.
4. It is not appropriate to include in an emergency plan a discussion of the mitigative strategies mentioned in Sections 3.1 and 3.2. It is appropriate to include a limited discussion in the exemption request.

Emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth in Appendix B to 10 CFR 50 and the standards described in § 50.47(b). Section 3.1 and 3.2 require an emergency plan programmatic description of the means and equipment that a NPP provides for limiting the consequences of a SFP drain down accident. 10 CFR 50.47(b)(8) states "Adequate emergency facilities and equipment to support the emergency response are provided and maintained." Equipment to support emergency response historically is limited to a description of radiological response types of equipment (e.g., radiation detection equipment, decontamination supplies and respiratory protection equipment).

5. The current section wording may be interpreted by an NRC reviewer as a list of requirements. The section was reworded to provide a list of examples of mitigative strategies. Listing the mitigating actions in the Emergency Plan is not required per regulations
6. It is not appropriate for the NRC to provide a detailed description of the means for limiting the consequences of a SFP accident. A licensee may not implement all of the example processes, and this may prompt potentially unnecessary requests for addition information from the NRC reviewer.