

## WCO Outreach CEm Resource

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**From:** McCULLUM, Rodney [rxm@nei.org]  
**Sent:** Thursday, February 16, 2012 4:30 PM  
**Subject:** NEI comments on U.S. Nuclear Regulatory Commission Draft Report for Comment, Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update, December 2011 (Adams Accession Number ML11340A141)  
**Attachments:** 02-16-12\_NRC\_NEI Comments on NRC Draft Report on Waste Confidence.pdf; 02-16-12\_NRC\_NEI Comments on NRC Draft Report on Waste Confidence\_Attachment 1.pdf; 02-16-12\_NRC\_NEI Comments on NRC Draft Report on Waste Confidence\_Attachment 2.pdf; 02-16-12\_NRC\_NEI Comments on NRC Draft Report on Waste Confidence\_Attachment 3.pdf

February 16, 2012

Ms. Christine L. Pineda  
Project Manager  
Division of Spent Fuel Alternative Strategies  
Office of Nuclear Material Safety and Safeguards  
Mailstop EBB-2B2  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** Nuclear Energy Institute comments on U.S. Nuclear Regulatory Commission Draft Report for Comment, *Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update*, December 2011 (Adams Accession Number ML11340A141)

**Project Number: 689**

Dear Ms. Pineda:

The Nuclear Energy Institute (NEI), on behalf of the nuclear energy industry, commends the U.S. Nuclear Regulatory Commission (NRC) for proactively addressing the topic of long-term waste confidence as reflected by staff's efforts to seek public comment on the subject draft report. Given current uncertainties in the U.S. repository program, it is appropriate for the NRC staff to supplement the Commission's generic waste confidence finding which concludes "if necessary, spent fuel generated at any reactor can be stored safely and without significant environmental impact for at least 60 years beyond the licensed life for operation."

The staff's efforts to address these longer timeframes are consistent with the direction received from the Commission to "begin a longer-term rulemaking effort" and to prepare an Environmental Impact Statement (EIS) "to support this longer-term waste confidence update." However, we do not agree with the sequence in which the staff is proposing to conduct its activities as described in the draft report.

More specifically, although we encourage the NRC to continue exploring safe and effective long-term used fuel storage, NEI recommends that the NRC reconsider its current plan to move forward with an Environmental Impact Statement (EIS) in the near term. Rather, the technical evaluation of long-term storage should proceed forward, and should become the basis for a future decision on a proposed action (e.g., a rulemaking revising

the current waste confidence rule or findings). This technical evaluation could support, or be structured as, an Environmental Assessment (EA) that would, in turn, inform the NRC's ultimate decision on whether preparation of an EIS is necessary or prudent. This approach is consistent with the Commission's historical approach to waste confidence and offers practical advantages over the current approach.

In order for the proposed action to be properly defined, substantial additional research and development on the technical aspects of extended storage will be required. This research is well underway, under the auspices of the U.S. Department of Energy, the Electric Power Research Institute, and others. These efforts will gather and analyze data, refine our understanding of long-term storage, develop and validate models, and make predictions of long-term storage performance. However, this research will not be completed for a number of years. Until these results are available to guide the NRC's analysis, any EIS will necessarily be highly speculative, of limited value, and potentially in need of substantial future revision. We recommend that, instead of beginning a speculative EIS scoping process now, the NRC undertake a regulatory gap analysis (similar to what is currently underway for the proposed reprocessing rulemaking—10 CFR 7X) to better define this rulemaking.

Additionally, during the time that the NRC is conducting the necessary regulatory and technical analysis, progress may be made on the national policy front with respect to implementing the recommendations of the President's Blue Ribbon Commission on America's Nuclear Future. Deferring final decisions on whether development of a full EIS is appropriate until after these recommendations have been addressed also will facilitate the development of a more well-defined proposed action.

We recognize that the NRC has highlighted, in the assumptions and scenarios described in the draft report, a number of issues that will need to be addressed in considering storage of used nuclear fuel over long timeframes. In anticipation that the NRC will more appropriately address these same issues in forthcoming technical and regulatory analysis, we are offering a number of specific comments on the draft report in Attachment 2 to this letter. Many of these comments highlight areas that could be addressed in a regulatory gap analysis. Attachment 3 to this letter provides a more detailed explanation of one of our specific comments—that the draft report's Assumption 9, "The Waste Confidence EIS will consider the impacts of terrorism," unnecessarily departs from Commission precedent.

Finally, we understand that the NRC has also received comments from the Decommissioning Plant Coalition (DPC). We recognize and respect that the DPC has a position that differs somewhat from that of the industry as a whole—in that they have no interest in extended waste confidence to support the licensing of new and operating nuclear plants given that they are already no longer operating. However, both NEI and the DPC are united in the view that work on the proposed EIS should be deferred. Placing the EIS on hold will allow the NRC to conduct sufficient technical and regulatory analysis to not only better define the proposed action, but also to consider the full range of actions necessary to address the differing needs of operating and shutdown plants.

In summary, while we believe that significant restructuring of the NRC's efforts to address long-term waste confidence is needed, we greatly appreciate that staff is being proactive in undertaking these efforts. We look forward to continuing to work with staff on this effort. We would be pleased to meet with the NRC staff at your earliest convenience to further discuss our comments on the draft report.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Rod McCullum  
Director, Used Fuel Programs

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NUCLEAR ENERGY INSTITUTE

Rodney McCullum  
DIRECTOR  
USED FUEL PROGRAMS  
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February 16, 2012

Ms. Christine L. Pineda  
Project Manager  
Division of Spent Fuel Alternative Strategies  
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The staff's efforts to address these longer timeframes are consistent with the direction received from the Commission<sup>3</sup> to "begin a longer-term rulemaking effort" and to prepare an Environmental Impact Statement (EIS) "to support this longer-term waste confidence update." However, we do not

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<sup>1</sup> NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry. 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 fabricators, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

<sup>2</sup> 75 *Federal Register* 81032, December 23, 2010.

<sup>3</sup> SECY 09-9090, Final Update of the Commission's Waste Confidence Decision, September 15, 2010.

agree with the sequence in which the staff is proposing to conduct its activities as described in the draft report.

More specifically, although we encourage the NRC to continue exploring safe and effective long-term used fuel storage, NEI recommends that the NRC reconsider its current plan to move forward with an Environmental Impact Statement (EIS) in the near term. Rather, the technical evaluation of long-term storage should proceed forward, and should become the basis for a future decision on a proposed action (e.g., a rulemaking revising the current waste confidence rule or findings). This technical evaluation could support, or be structured as, an Environmental Assessment (EA) that would, in turn, inform the NRC's ultimate decision on whether preparation of an EIS is necessary or prudent. This approach is consistent with the Commission's historical approach to waste confidence and offers practical advantages over the current approach.

In order for the proposed action to be properly defined, substantial additional research and development on the technical aspects of extended storage will be required. This research is well underway, under the auspices of the U.S. Department of Energy, the Electric Power Research Institute, and others. These efforts will gather and analyze data, refine our understanding of long-term storage, develop and validate models, and make predictions of long-term storage performance. However, this research will not be completed for a number of years. Until these results are available to guide the NRC's analysis, any EIS will necessarily be highly speculative, of limited value, and potentially in need of substantial future revision. We recommend that, instead of beginning a speculative EIS scoping process now, the NRC undertake a regulatory gap analysis (similar to what is currently underway for the proposed reprocessing rulemaking—10 CFR 7X) to better define this rulemaking.

Additionally, during the time that the NRC is conducting the necessary regulatory and technical analysis, progress may be made on the national policy front with respect to implementing the recommendations of the President's Blue Ribbon Commission on America's Nuclear Future. Deferring final decisions on whether development of a full EIS is appropriate until after these recommendations have been addressed also will facilitate the development of a more well-defined proposed action.

We recognize that the NRC has highlighted, in the assumptions and scenarios described in the draft report, a number of issues that will need to be addressed in considering storage of used nuclear fuel over long timeframes. In anticipation that the NRC will more appropriately address these same issues in forthcoming technical and regulatory analysis, we are offering a number of specific comments on the draft report in Attachment 2 to this letter. Many of these comments highlight areas that could be addressed in a regulatory gap analysis. Attachment 3 to this letter provides a more detailed explanation of one of our specific comments—that the draft report's Assumption 9, "The Waste Confidence EIS will consider the impacts of terrorism," unnecessarily departs from Commission precedent.

Finally, we understand that the NRC has also received comments from the Decommissioning Plant Coalition (DPC).<sup>4</sup> We recognize and respect that the DPC has a position that differs somewhat from that of the industry as a whole—in that they have no interest in extended waste confidence to support the licensing of new and operating nuclear plants given that they are already no longer operating. However, both NEI and the DPC are united in the view that work on the proposed EIS should be deferred. Placing the EIS on hold will allow the NRC to conduct sufficient technical and regulatory analysis to not only better define the proposed action, but also to consider the full range of actions necessary to address the differing needs of operating and shutdown plants.

In summary, while we believe that significant restructuring of the NRC's efforts to address long-term waste confidence is needed, we greatly appreciate that staff is being proactive in undertaking these efforts. We look forward to continuing to work with staff on this effort. We would be pleased to meet with the NRC staff at your earliest convenience to further discuss our comments on the draft report.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rodney McCullum', written over a light blue horizontal line.

Rodney McCullum

Attachments

c: Ms. Catherine Haney, NMSS, NRC  
Mr. Aby S. Mohseni, NMSS/SFAS, NRC

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<sup>4</sup> Letter, Callahan to Pineda, February 16, 2012.

**Basis for NEI Position that NRC should Defer Its Decision to Develop an Environmental Impact Statement under the National Environmental Policy Act**

**NEI Comments on the Draft “Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update” (U. S. Nuclear Regulatory Commission, December 2011)**

The NRC’s draft report was developed as a means to seek feedback on the agency’s *preliminary plans* to develop an Environmental Impact Statement (EIS) associated with the long-term storage of spent nuclear fuel. According to the draft report, at 1, the EIS is “intended to inform an update of certain aspects of the Waste Confidence decision and, possibly, the Waste Confidence rule in Title 10 of the *Code of Federal Regulations* (CFR) section 51.23.” However, the draft report also acknowledges (*id.*) that “the NRC has not yet formally announced its intent to develop this proposed EIS under the National Environmental Policy Act.”

The Commission, in the Staff Requirements Memorandum (SRM) on SECY-09-0090, dated September 15, 2010, addressed the recent final rule updating the NRC’s waste confidence findings and amending 10 C.F.R. 51.23. In that SRM, the Commission directed the staff to begin the longer-term rulemaking effort to update the waste confidence decision to address long-term storage of spent fuel beyond the 120-year timeframe considered in the revised waste confidence findings. The Commission also indicated that, to support a longer-term waste confidence update, the staff should prepare a draft EIS. While NEI agrees that the longer-term rulemaking effort is prudent, NEI believes that the NRC should reconsider the current plan to move forward with an EIS. Rather, the technical and regulatory evaluation of the terms for and impacts of long-term storage should proceed forward, and should become the basis for a *future* decision on the specific form and scope of the NEPA documentation.

NRC regulations and NEPA require only that the NRC determine whether an EIS or Environmental Assessment (EA) will be prepared *before taking a proposed action*. See 10 C.F.R. 51.25. An EIS is ordinarily required only if the proposed action is a major federal action significantly affecting the quality of the human environment or when the proposed action involves a matter that the Commission, in an exercise of its discretion, has determined should be covered by an EIS. 10 C.F.R. 51.20(a). As an alternative, an EA may be completed before concluding that a proposed action will require an EIS. 10 C.F.R. 51.31. An EA may also provide a basis for a finding of no significant environmental impact (FONSI). 10 C.F.R. § 51.32. While the NRC may have discretion to conduct an EIS rather than an EA, it does not appear to be prudent to exercise that discretion from the outset in this particular case.

In connection with the final rule updating the Waste Confidence findings in 2010, the NRC did not conduct an EIS. Commenters on the proposed rule specifically argued that the waste confidence decision should be supported by a generic EIS. 75 *Fed. Reg.* 81,032, 81,040 (Dec. 23, 2010). The Commission rejected that approach. The Commission explained that site-specific licensing proceedings are supported by generic and site-specific EISs covering the impacts related to storage of spent fuel during the licensed term. *Id.* at 81,041. However, the waste confidence findings themselves reflect that spent fuel storage for the defined period beyond the operating lifetime of a plant would not involve any significant environmental impacts from storage. The revisions in the findings also did not involve a significant impact. Given its



conclusions, the NRC made a FONSI and determined that an EIS was not required. *Id.* at 81,042. The NRC's decision to not prepare an EIS has been challenged in the United States Court of Appeals, and the NRC has maintained its position that the waste confidence decision does not require an EIS.<sup>1</sup>

With respect to extended or long-term storage now being analyzed, and a possible update to the waste confidence findings, it is neither prudent nor necessary for the NRC to pre-suppose that an EIS is required. The precise nature of the proposed federal action has not been determined. Moreover, the technical and environmental evaluations to be conducted by the NRC will define the conditions of long-term storage and determine the nature of any environmental impacts. The evaluations will undoubtedly be used to frame the scope of any future rulemaking. Likewise, there is no particular reason stated by the Commission or in the draft report for the agency to exercise discretion at the present time to prepare an EIS. The ongoing work can be conducted as an EA, with a decision to be made in accordance with 10 C.F.R. 51.31 based on the EA. This approach would have the added benefit of maintaining consistency with the approach that was taken (and is now being challenged) with respect to the revised waste confidence findings in 2010.

There are practical considerations as well that support deferral of the decision to prepare an EIS. The NRC's EIS process in 10 C.F.R. Part 51 dictates a scoping process (10 C.F.R. 51.28 – 51.29) and other procedural requirements (10 C.F.R. 51.70 – 51.74). However, these requirements raise difficulties at the present conceptual stage of the technical and regulatory evaluation of long-term spent fuel storage issues. The scope of any rulemaking is not yet defined; it will, in fact, be defined only upon completion of the evaluation. The NRC appears to be addressing the NEPA issue as the proverbial cart before the horse. One impact of this approach is reflected in the series of assumptions outlined in Section 8 of the draft report. The assumptions, in effect, define the scope of the proposed evaluation. It may be more appropriate to conduct an evaluation (perhaps in the form of a regulatory gap analysis similar to what is currently underway for the proposed reprocessing rulemaking – 10 C.F.R. 7X) that leads to findings of the type characterized in the draft report as assumptions. Those findings would inform or constrain further evaluations of environmental impacts. Then, depending upon the evaluation, the NRC can (1) determine the scope of its proposed action, and (2) the nature of the required NEPA review.

In sum, NEI suggests that the NRC defer the determination of the scope of the NEPA review. At most, at this time, the NRC should prepare an EA. Whether an EIS is necessary or desirable as a matter of discretion should be determined based on the results of NRC's evaluation and/or EA.

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<sup>1</sup> NEI is a party to the litigation in the Court of Appeals for the D.C. Circuit (Case No. 11-1045 (consolidated with Nos. 11-1051, 11-1056, 11-1057)). NEI concurs with the NRC's position.

**NEI Specific Comments on the Draft “Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update” (U. S. Nuclear Regulatory Commission, December 2011)**

No.	Location	Comment
1.	General	The NRC’s technical and regulatory analysis of long-term waste confidence, whether conducted as a part of the proposed EIS process or, more preferably, in advance of this process, needs to consider the existing guidance for license renewal applications for dry storage licenses and cask certificates of compliance (NUREG-1927) to assure that regulatory consistency is maintained. Any inconsistencies would create an uncertain regulatory environment at a time when a number of 10 CFR 72, Subpart K certificate renewal applications will be under review.
2.	p. 1, 1 <sup>st</sup> paragraph and typical throughout the document	The document uses the terms “60 years beyond the licensed life of any reactor” and “storage beyond a 120 year timeframe” interchangeably. The relationship between these terms should be clearly explained and they should be used consistently throughout the document.
3.	p. 5, 3 <sup>rd</sup> paragraph	The document indicates that the 2010 waste confidence decision did not require an EIS because the Commission “concluded that the environmental impacts...would not be significant.” The document also indicates that the Commission “has not found that the environmental impacts of more than 120 years of storage would be significant.” Yet, no explanation is given for why the possibility of a finding of no significant impact is being set aside in this case, as reflected by the Commission’s decision to use its discretionary authority to proceed directly to an EIS. In the interest of transparency in government, such an explanation should be provided. As explained in Attachment 1, this is a fundamental reason why we believe that the EIS should be deferred.
4.	p. 5, 1 <sup>st</sup> paragraph in Section 5	The document states “... in some cases, the NRC develops an EIS for significant changes to its regulations.” It would be helpful if examples of such changes could be provided along with an explanation of how these examples support conducting an EIS in this instance.

No.	Location	Comment
5.	p. 5, 2 <sup>nd</sup> paragraph in Section 5	The document states “The purpose of any resulting Waste Confidence update is to ensure that the decision and rule are informed by current circumstances (including national policy)...” The NRC should not speculate on national policy outcomes. This is one reason this EIS is premature, as there may be substantial changes in national policy in response to the recently released Blue Ribbon Commission report over the next few years. The NRC would be better served by waiting until national policy has become more thoroughly formed before undertaking this effort
6.	p. 6, last paragraph of Section 5	Please explain to what “... an associated update of the safety aspects of the Waste Confidence decision ...” refers.
7.	p. 6, Section 6	The document states “...this long-term Waste Confidence EIS will not require reconsideration of a possible update to the rule and decision every five to ten years.” We are not aware of any such requirement, in the 2010 update or elsewhere, for periodic update of the waste confidence rule. Given the relatively long storage periods addressed in the 2010 update and the fact that it concluded that a repository would be available “when necessary” it seems counterintuitive to imply that any nearer term periodic updates would be needed.
8.	p. 6, Section 6	If the NRC does conduct an EIS of long-term waste confidence, the NRC should not limit its consideration to just four “storage scenarios” as indicated in the document. Scenarios in which the government successfully carries out its obligations under the Nuclear Waste Policy Act to dispose of used fuel at various points in time prior to 300 years from now should also be considered.
9.	P.6, first paragraph in Section 7	The NRC should provide a more detailed basis for why a 200-year span is being chosen for any NEPA analysis to be conducted. The opportunity to conduct sufficient technical and regulatory analysis, to more thoroughly develop the basis for such decisions is a key reason why industry is recommending that all near term work on the EIS be deferred. The development of this basis could be more effectively accomplished through a regulatory gap analysis.
10.	p.7, paragraph that continues over from p. 6	In indicating that the NRC intends to rely on “relevant NEPA documents” staff should specifically identify these documents and describe how they will be relied upon. In particular, the NRC should describe the extent to which staff intends, or does not intend, to rely on the U.S. Department of Energy’s (DOE) Yucca Mountain EIS. For example, what role will the DOE transportation analysis from that EIS play in this effort?

No.	Location	Comment
11.	p.7, 2 <sup>nd</sup> paragraph	In assuming that nuclear power continues as a source of energy, the NRC should be more specific regarding what projections of future nuclear output will be relied on to support this assumption. For example, will the NRC rely on Energy Information Agency projections? And, if so, which growth scenarios within those projections will be considered?
12.	p.8, 1 <sup>st</sup> full paragraph	The term “below safety limits” should be “negligible and well below safety limits” to more accurately reflect experience with the storage facilities being discussed.
13.	p.8, 1 <sup>st</sup> full paragraph	How will the NRC estimate worker doses from “spent fuel handling?” Will it be assumed that casks will have to be periodically reloaded? How often? It is industry’s goal to avoid repackaging. The question of whether or not any repackaging for storage could be needed is likely to be addressed by ongoing extended storage R&D. Hence, to postulate any repackaging impacts at this time would be purely speculative. This is another reason why the NRC should wait for the results of this R&D prior to undertaking an EIS. Additionally, the NRC should not consider repackaging for disposal in the context of any storage EIS as such repackaging will be more appropriately addressed as part of a repository EIS (as it was in the Yucca Mountain EIS).
14.	p. 8, 2 <sup>nd</sup> full paragraph	The document states “Although the total amount of spent fuel and high-level waste in storage can be extrapolated over a 300-year period....” It is not at all clear how that is to be done. Again, the NRC should be more specific regarding what projections of future nuclear output will be relied on to support this assumption (see comment #11). The NRC should not speculate beyond the timeframe for which reliable projections are available.
15.	p.9, 1 <sup>st</sup> paragraph in Section 8.1	We recommend basing any NEPA analysis the NRC conducts on current transportation technologies as any “projection” of future transportation technologies would be purely speculative.

No.	Location	Comment
16.	p.10, Assumption 2	<p>Although the industry believes that the proposed EIS should be deferred, we endorse the consideration of reprocessing/recycling in any NEPA analysis the NRC performs. In doing so, the NRC should be careful to coordinate the consideration of environmental impacts of extended storage associated with a reprocessing/recycling scenario with what will most likely be separate evaluations for reprocessing/recycling facilities to assure consistency and prevent overlapping scope.</p> <p>With respect to the consideration of reprocessing, we have two specific comments on the document;</p> <ul style="list-style-type: none"> <li>○ Throughout the document, “reprocessing” appears to infer the process of separating reusable materials (e.g., uranium and plutonium) from wastes. Since “reprocessing” is a term that has historically been associated with aqueous processing, as opposed to other techniques such as pyro-processing, and to defense industry applications, we recommend that the report refer to “recycling,” “recycling/reprocessing,” or “reprocessing/recycling” to ensure a technology-neutral connotation and to indicate a commercial application.</li> <li>○ In Section 8.1, assumption (2), the parenthetical following the word “reprocessing” in the last sentence states “the separation of short-lived radionuclides from spent fuel.” This is an inaccurate description of recycling/reprocessing, and we recommend using “the separation of the isotopes of uranium and transuranic actinides including plutonium or mixtures of uranium, plutonium or other actinides from used fuel.”</li> </ul>
17.	p. 10, Assumption #3	<p>The statement that “One decommissioned site is planning to continue using pools, not dry casks, for spent fuel storage until 2048” is confusing. We are not aware of any stand-alone decommissioned reactor site that is planning to do this. We suspect that the document may be referring to a case where a decommissioned reactor is co-located with operating reactors or the GE Morris site. The NRC should clarify and perhaps select more representative examples upon which to base this assumption</p>

No.	Location	Comment
18.	p.10, Assumption #4	Again, the document indicates that the NRC will “consider the impacts of repackaging operations.” As in comment #13, we point out that any consideration of repackaging impacts would be purely speculative at this time and this is another reason why the NRC should wait for the results of ongoing extended storage R&D prior to undertaking an EIS.
19.	p. 11, Assumption #5	Again, the consideration of large-scale repackaging of stored fuel at this time is purely speculative. As in comment #13, we point out that any consideration of repackaging impacts would be purely speculative at this time and this is another reason why the NRC should wait for the results of ongoing extended storage R&D prior to undertaking an EIS. Furthermore, this comment specifically mentions repackaging “before disposal.” The NRC should not consider repackaging for disposal in the context of any storage EIS as such repackaging will be more appropriately addressed as part of a repository EIS (as it was in the Yucca Mountain EIS).
20.	p. 11, Assumption #6	There is no need to consider the financial resources of licensees in the context of long-term storage operations. Consistent with numerous lawsuits and settlements, the federal government is financially responsible for long-term storage operations required by the failure of the government to fulfill its contracts to manage used fuel.
21.	p. 11, Assumption #6	We endorse the NRC’s decision not to consider a collapse-of-society scenario. To do so would be impossibly speculative and pointless, as the impacts of unattended used nuclear fuel would be small compared to the overall impacts of societal collapse.
22.	p. 12-13, Assumption #8	It is premature for the NRC to be undertaking any environmental analysis of extended storage based on accident scenarios that are constructed to include “recent events” such as the March 2011 Japan earthquake and tsunami, the August 2011 Virginia earthquake, and other recent hurricanes/floods. There is extensive work being conducted on a much broader level by industry and the NRC to determine the extent to which these events warrant additional consideration in nuclear reactor design basis and beyond design basis analysis. Any extended storage evaluation should wait for this work to be completed so as not to inadvertently describe a contradictory response for ISFSIs. This is another reason to defer the proposed EIS. A regulatory gap analysis would provide a more appropriate means for the NRC to assimilate the results of ongoing design basis evaluation efforts into its consideration of extended storage.

No.	Location	Comment
23.	p. 13, Assumption #9	There should be no consideration of acts of terrorism against a dry storage installation. NEI believes that the assumption reflects a departure from Commission precedent, will create practical difficulties, and is unnecessary. Attachment 3 provides a detailed explanation of our position on this assumption.
24.	p.14, 2 <sup>nd</sup> paragraph	The NRC should not consider the use of alternate approaches to disposal in any NEPA analysis of extended storage. This will be more appropriately addressed in specific disposal NEPA analysis to be conducted by the DOE.
25.	p. 14, 2 <sup>nd</sup> paragraph	The NRC's intent to consider, in its four scenarios, "advanced spent fuel management technologies" seems inconsistent with assumptions #2 and #4, which appear to rely on the continued use of existing fuel types and storage technologies.
26.	p. 14, Scenario 1	This scenario refers to a 300-year assessment period, yet assumption #6 and Section 7 refer to a 200-year assessment period. In Section 7, the NRC states that they are going to do a 200-year assessment that may include fuel as old as 300 years. This document, at times, appears to confuse the two. The NRC should assure that consistent terminology is used throughout.
27.	p. 14, Scenario 1	The assumption that reactor sites operate and maintain pools presently at sites as long as fuel is in dry cask storage, which implies that pools will be maintained beyond decommissioning, is not valid. It is inconsistent with existing reactor decontamination and decommissioning plans. It is also inconsistent with current practice at several shutdown plants. With respect to this issue, we agree with the comments of the Decommissioning Plant Coalition, <sup>1</sup> in that the NRC should assume that, for facilities where the spent fuel pool has been decommissioned, spent fuel will be removed to a consolidated interim storage facility prior to the need for reconstruction of repackaging infrastructure.

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<sup>1</sup> Letter, Callahan to Pineda, February 16, 2012.



No.	Location	Comment
28.	P. 14, Scenario 1	It is not clear why the NRC would need to evaluate impacts for between “5 to more than 20” generic sites. The fact that this range is so wide and the potential number of sites is indicative of the dilemma that the NRC faces in attempting to evaluate environmental impacts ahead of much of the technical work that would better inform such an evaluation. A more thoroughly developed knowledge base would allow the NRC to greatly narrow the number of generic sites needed, should an EIS be found necessary. This is another reason to defer the decision to prepare an EIS until additional technical and regulatory analysis can be conducted. A determination of an appropriate number of sites could be more effectively made through a regulatory gap analysis.
29.	p. 15, Scenario 2	When discussing time periods of several centuries, the age of the fuel (e.g., 20 years versus 200 years) can significantly affect the type and magnitude of potential transport impacts. Additional clarity on when transportation will begin, and how much fuel will be transported in discrete time periods, will need to be considered. This is another reason to defer decisions regarding preparation of an EIS as the national policy framework, which will affect the timing of transportation, may be better known after the nation has had an opportunity to respond to the recommendations of the Blue Ribbon Commission. This is another case where a regulatory gap analysis could be used, in this instance to better define a reasonable set of transportation assumptions.
30.	p. 15, Scenario 3	We recommend the use of “consolidated” in place of “centralized” for interim storage, consistent with the terminology used by the Blue Ribbon Commission.
31.	p. 17 Section 11	The NRC provides no explanation of why it plans to carry out a preliminary scoping process prior to performing actual scoping. As explained in Attachment 1, we believe this activity should be deferred until more information is known and the NRC is in a better position to assess the scope of any potential action.



**Detailed explanation of NEI Comment # 23 on the Draft “Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update” (U. S. Nuclear Regulatory Commission, December 2011)**

*1. Assumption (9) in Section 8.1 unnecessarily departs from Commission Precedent*

Assumption (9) in the draft report states that a waste confidence EIS for long-term storage of spent fuel will consider the impacts of terrorism on storage facilities and the environment. NEI believes that the assumption reflects a departure from Commission precedent, will create practical difficulties, and is unnecessary.

The Commission’s policy on the consideration of terrorism in NEPA evaluations was established in the matter of *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002). The NRC concluded that NEPA, under a rule of reason, does not require an assessment of terrorist attacks. *Id.* at 348-50. Moreover, the NRC found that the risk of a terrorist attack cannot be determined meaningfully—making an evaluation of the issue of terrorism risks to the environment not useful for decision-making. *Id.* at 350-51. The NRC also pointed to the security-sensitive nature of the issue as a basis to conclude that a NEPA evaluation is not an appropriate vehicle to analyze terrorism. *Id.* at 355-56.

Notwithstanding an adverse decision in the Ninth Circuit Court of Appeals,<sup>1</sup> the Commission reaffirmed its position on NEPA and terrorism in *Amergen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 129-30 (2007). The Commission cited precedent establishing that an NRC licensing action is not the proximate cause of any environmental impacts of a terrorist attack, and, therefore, those impacts are beyond the scope of a NEPA evaluation. The position was upheld by the Third Circuit Court of Appeals in *NJDEP v. NRC*, 561 F.3d 132 (3<sup>rd</sup> Cir. 2009). The NRC’s position in subsequent cases—in various licensing contexts, including new plant licensing and license renewal—has been that NEPA evaluations do not include terrorism issues except for facilities in the Ninth Circuit.

The draft report acknowledges (at 13) the split between the Circuit Courts, and states that the “EIS will include a discussion of terrorism that the NRC believes satisfies the Ninth Circuit’s holding in [*SLOMFP*],” and that “staff plans to consider the environmental impacts of terrorism related to storage and transportation at a generic level.” NEI understands the intent to maximize the scope of the generic assessment and thereby maximize the scope of facilities potentially covered in a generic EIS. However, this assumption regarding the scope of the intended EIS will clearly create an unnecessary inconsistency in the agency’s position on NEPA and terrorism.

The intent to include this issue also directly raises the concerns cited by the NRC in *Private Fuel Storage* and subsequent cases. In particular, the probability and consequences (*i.e.*, the risk) of terrorist attacks are difficult to meaningfully assess. The range of potential terrorist scenarios is open-ended, limited only by the imagination of an evaluator. Determining which scenarios are “credible” is subjective and subject to constant reassessment. And, even if that issue were solved, the probability (and thus the risk) of the scenario cannot be determined

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<sup>1</sup> *SLOMFP v. NRC*, 449 F.3d 1016 (9<sup>th</sup> Cir. 2006)

meaningfully—particularly when the issue is considered over the extended times involved for long-term storage of spent fuel. A tendency to conservative assumption (*e.g.*, assigning a probability of one to certain scenarios) will only skew the results of the evaluation, distorting public perceptions and decision-making.

At bottom, in issuing the updated waste confidence findings, the NRC reiterated its position on the legal issue of NEPA and terrorism. 75 *Fed. Reg.* at 81,052. The Commission did include a discussion of terrorism in the discussion of the revision to Finding 4 (*see* 75 *Fed. Reg.* at 81,073 – 81,075) that the Commission “believes satisfies the Ninth Circuit’s holding in [*SLOMFP*].” *Id.* at 81,052. However, contrary to this belief, and the discussion of Assumption (9), it is not clear what evaluation of terrorism attack scenarios would satisfy the Ninth Circuit. Although the Ninth Circuit upheld the NRC’s evaluation of the issue on remand in the *SLOMFP* matter, the issue remains subject to case-by-case considerations, and any legal outcome is less than certain. While the issue should not and cannot be ignored under the NRC’s Atomic Energy Act responsibilities, NEI believes that the best place to assess terrorism as it relates to storage of spent fuel over an extended period is outside the NEPA context.