Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
Cover	2	The NEI 08-08 Submittal letter notes that the applicable sections of TR-1016099 forms the technical basis for NEI 08-08 and that NEI 08-08 is "consistent with" TR-1016099. It is not clear what is meant by the term "consistent with", and it is not clear which, if any sections, of TR-1016099 and/or NEI 07-07 are not considered applicable and are not endorsed. 1. Please describe to what extent and how TR-1016099 should be used in conjunction with NEI 08-08. 2. Please describe to what extent and how NEI-07-07 should be used in conjunction with NEI 08-08.	See the 3rd paragraph to Section 2 of NEI 08-08 for the detail on the relevant sections of 07-07. See below: "The technical basis for the program for early detection of leakage for new reactor applications is the Industry Ground Water Protection Initiative-Final Guidance Document NEI 07-07 Section 1.0 Ground Water Protection Program." "EPRI TR-1016099 provides a detailed technical basis in the accomplishment of NEI 07-07 and NEI 08-08, and should be used to implement a comprehensive approach to the operational aspects of groundwater protection for new reactors."	Resolved in revisions 1A and 1B to NEI 08-08.
3.1.4.a	3	Define or explain the term "credible mechanisms." It is unclear why this guide considers only outdoor facilities. Do the applicants consider indoor facilities?	NEI 08-08 considers more than outdoor facilities - see 3.1.4 a. Inserted between 3.1.4 and a: **"Note**: A 'credible mechanism' for the licensed material to reach ground water is considered one wherein the failure of a single barrier between the SSC and the environment that could result in inadvertent or unintentional contamination of ground water or native soil." Additionally the control of contamination in indoor facilities is under the RP program and has been described in Section 2 of revision 1 of NEI 08-08.	Resolved with the revisions 1 and 1A to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.2.2.a	4	Modify text of bullet as follows to allow for flow paths that may not be strictly "down gradient" on a potentiometric map (i.e. preferential flow paths created by site heterogeneity). "Using the hydrology and geology studies developed under 4.1.below, consider effective placement of ground water monitoring wells ~~downgradient from~~ relative to the ~~plant~~ source and receptor but within the boundary defined by the site license."	Licensees will also follow the guidance in EPRI 1016099 to install monitoring wells that ensure prompt detection of leakage (see 3.2 title). There was no reference to potentiometric maps in NEI 08-08 nor was any intended. Note that there may not be a receptor identified for ground water. The general concerns related to preferential flow pathways is addressed in some of the other concerns addressed here.	This was discussed in the February 18th public meeting and believed resolved.
3.2.2.a	4	Define boundary? Or are the site specific procedures required to define it?	The site license defines this as stated in Revision 1 of NEI 08-08. The following was added to 3.2.2.a for clarity: "(i.e. the boundary defined for compliance with 10 CFR part 20)." Note: The reference to site boundary is for placement of wells not to place limits on the site conceptual model.	Resolved this concern in NEI 08-08 revision 1.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4 3.2.1 3.2.2 3.5.1	3, 4, 6	In several sections of NEI 08-08, the focus is only on leaks and spills that have credible mechanisms for licensed material to reach ground water. Although minimizing contamination to groundwater is important, 10 CFR 20.1406 is for minimizing contamination for the facility and all site environs (including soil, surface water and groundwater). Additionally, NEI 08-08 states the applicant should be consistent with EPRI Report 1016099, which states licensees should evaluate and monitor SSCs with credible potential for releasing radioactive liquid to soil and groundwater. Therefore, 1. Explain why section 3.1.4 tells the applicant to evaluate SSCs that contain or could contain licensed material for which there is a credible mechanism for licensed material to reach groundwater; and 2. Explain why section 3.2.1 states only monitoring and routine surveillance is for accessible systems which there is a credible mechanism for licensed material to reach groundwater; and 3. Explain why section 3.5.1 a. and b. only review work practices involving SSCs that have a credible mechanism for licensed material to reach groundwater.	Each step is only one component in a broad program. 1. The most credible method for contamination from leaks or spills to leave the licensee's control and to potentially migrate off-site is through ground water; absent excavation, contamination in soil would only leave the site if the contamination desorbs or is transferred into ground water. The EPRI document provides additional detail on how to achieve the requirements in NEI 08-08. The RP program addresses leaks and spills inside a building or that are prevented from reaching ground water. (see the last paragraph of Section 2 of NEI 08-08) 2. Section 3.3 complements 3.2.1 and addresses leak detection from SSCs that are not readily accessible. 3 The focus of NEI 08-08 is to control contamination – as such, only those work practices that can result in the spread of contamination through leaks or spills that have a credible mechanism to reach ground water warrant evaluation. Note the definition of **groundwater** in the definitions of NEI 08-08 *"Ground water* as used in this document, means any subsurface water, whether in the unsaturated or vadose zone, or in the saturated zone of the earth." Section 2 of revision 1 to NEI 08-08 has been expanded as follows: "The site program that addresses ground water monitoring should also address the identification of inadvertent or unintentional contamination of subsurface or native soil."	This was discussed in the February 18th public meeting and believed resolved.

Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.5.2	7	Clarify the term "Significance of the event." Does this mean radiologically significant? Is it intended to be reportable under 10CFR50.72 or 50.73 (NUREG-1022)	Yes, this is in terms of RG 4.21 and the definition for "radiologically significant" in NEI 08-08 (from RG 4.21 page 6 footnote 1). "Significance" is not intended to be based on reportability under 10CFR 50.72 or 50.73. A change was made to Section 3.5.2 of revision 1 to NEI 08-08 addressing this as follows: "significance of the event (See Reference 5 page 6 footnote 1)"	Resolved in revision 1 and 1A to NEI 08-08.
3.1.2	3	Part 3.1.2 of NEI 08-08 states that the facility will include designated areas for maintenance, decontamination, and storage when dealing with radioactive materials and contaminated areas will be segregated from contaminated areas to assist in minimizing facility contamination. However, radioactive materials may have to be transported from one station to another within the facility and may need to be passed through clean areas. Identify that administrative controls should be established to prevent the spread of contamination during this type of transport as described in Regulatory Guide 4.21 A-1 v.	The RP program addresses the handling of radioactive materials, including their movement from one part of the site to another. Revisions to the last paragraph of section 2 of NEI 08-08 address this concern. "This template recognizes that other site programs, such as the maintenance and surveillance program, and radiation protection program, help to minimize contamination of the facility and the environment. The radiation protection program addresses the handling of radioactive materials including the control of contamination inside indoor structures or facilities and the movement of radioactive materials from one part of the site to another."	Resolved in revision 1A to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
4.1.1.a	7	Specify "the ground water flow characteristics." Again, this item is inconsistent with item 4.1.1.c - The first one says "predominant ground water flow" while the later one infers (all) potential ground water.	Language from NEI 07-07. Section 4.1.1a requires licensees to determine predominant ground water flow characteristics and gradients. Additionally Section 4.1.1c requires the licensee to identify potential pathways for migration. Following the sequential steps in 4.1.1, the predominant ground water flow is on a larger (site) scale whereas the migration pathways are on a smaller scale, a more detailed look, at how ground water may flow around subsurface structures.	This was discussed in the February 18th public meeting and believed resolved.
4.1.1	7	Section states that Reference 4 includes additional information to assist in determining 'substantial' items. Please include an explanation of how to make such a "significance" determination when NEI 08-08 is described to be consistent with reference 4. NEI 08-08 guidance does not ensure a similar determination would be made for the same conditions at different sites. NEI 08-08 could require site procedures to establish the substantial threshold (i.e., double parentheses).	Each site has different geology and other characteristics that affect, to varying degrees, the hydrology. "Substantial" is defined by the professional geologist/hydrologist who is familiar with the site (see Note). The existing note has been made more visible and relocated to after Section 4.1.1.e of revision 1 to NEI 08-08 for a more applicable location in the document.	This was discussed in the February 18th public meeting and believed resolved.
4.1.1	7	Are "current site conditions" are intended to be post-construction?	Yes. "Current" reflects the need to keep the site conceptual model up to date as site conditions change that could affect the characterization of geology or hydrology. New text has been added to paragraph 3 of Section 2 of revision 1 of NEI 08-08 as follows: "The applicant's program involves an initial and periodic evaluation of the facility SSCs, work activities, and generic issues. The frequency of the evaluation should reflect factors that affect the likelihood and potential consequences from an inadvertent loss of radioactive material to the environment."	This was discussed in the February 18th public meeting and believed resolved.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
2 3.1.1	2, 3	As stated in Section 2, NEI 08-08 provides operating programs, processes and/or procedures to supplement Standard Design, design features to meet 10 CFR 20.1406. However, due to the nature of the regulation, there are many ways to meet 10 CFR 20.1406. In that case, there may be operational programs that may need to be incorporated due to specific design features, or lack thereof. Section 3.1.1 and Appendix A direct the applicant to provide necessary pointers to design features in the DCD and COL as needed to avoid additional operational programs. However, NEI 08-08 does not describe what a COL applicant must do if these design features are not included. 1. Explain how an applicant could use NEI 08-08 if these design features were not included in their plant design.	The SSC assessment required in section 3.1.4 of NEI 08-08 is to determine any operational measures needed to complement system designs submitted with the COL application. If the design features merit additional measures, the applicant would identify the issues in the evaluation of SSCs. If, for example, a system were not designed with secondary containment measures, the evaluation of SSCs under 3.1.4 would likely cause the applicant to implement additional leak detection or monitoring programs in order to ensure timely detection of leaks. It may also affect the frequency of preventative maintenance to preclude equipment failure. Additionally the text of paragraph 2 of Section 2 of the most recent revision of NEI 08-08 was revised: “This template applies to the applicant that has selected a Standard Design, as defined by 10 CFR Part 52, with design features and <u>COL described design features</u>, that when supplemented with operating programs, processes, and procedures as needed, are adequate to comply with 10 CFR 20.1406.” New text has also been added to paragraph 3 of Section 2 of revision 1 of NEI 08-08 describing the SSC reviews. “The applicant's program involves an initial and periodic evaluation of the facility SSCs, work activities, and generic issues. The frequency of the evaluation should reflect factors that affect the likelihood and potential consequences from an inadvertent or unintentional loss of radioactive material to the environment.”	Resolved in revision 1A to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
5.2.2	9	Section 5.2.2 of NEI 08-08 states the applicant will ensure that records of leaks, spills and remediation efforts are retained and retrievable to meet the requirements of 10 CFR 72.30 (g). However, decommissioning records are covered under 10 CFR 72.30 (d). 1. Change the statement to 10 CFR 72.30 (d).	Typographical error – corrected in revision 1 of NEI 08-08.	This was discussed in the February 18th public meeting and believed resolved.
2 3.1.1	2, 3	NEI 08-08 Guidance section 2, Applicability and Controls, notes that design features of a "Standard Design" when supplemented with program features are adequate to comply with 10CFR20.1406. This portion of the standard does not reference COL provided design features. COL design features are discussed in the note following 3.1.1. 1. Please revise the Applicability and Controls sections, so that the two areas are consistent and that Standard Design and COL design features are both addressed.	Section 2 is a general discussion of applicability and controls. Section 3 provides the specific details. Revisions to Section 2 of revision 1 to NEI 08-08 address this issue. "This template applies to the applicant that has selected a Standard Design, as defined by 10 CFR Part 52, with design features and COL described design features, that when supplemented with operating programs, processes, and procedures as needed, are adequate to comply with 10 CFR 20.1406. The operating programs, processes and/or procedures identified within this template supplement those adequate design features to provide reasonable assurance that 'spills, leaks, and inadvertent discharges of radioactive effluents will be prevented or minimized."	Resolved with revisions to section 2 in revisions 1 and 1A of NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4 3.3.1	3, 5	NEI 3.1.4(a) addresses outdoor tanks, but does not discuss embedded tanks or sumps. These types of tanks/sumps are discussed in 3.3.1. 1. NEI 3.1.4(a) should be changed to make it consistent with 3.3.1 and RG 4.21	Outdoor tanks are one item in the list of examples of SSCs of interest. EPRI Guidance Statement 3.2.1a includes sumps and drains. Sections 3.1.4a and 3.3.1 provide examples and are not exclusive lists. As written the examples are not inconsistent. Revisions to Section 3.1.4.of revision 1 to NEI 08-08 address this concern. "Note: A 'credible mechanism' for the licensed material to reach ground water is considered one wherein the failure of a single barrier between the SSC and the environment that could result in inadvertent contamination of ground water or native soil." Additionally paragraph 5 of Section 2 addresses other program areas: "This template recognizes that other site programs, such as the maintenance and surveillance program, radiation protection program, help to minimize contamination of the facility and the environment. The radiation protection program addresses the handling of radioactive materials including the control of contamination inside indoor structures or facilities and the movement of radioactive materials from one part of the site to another."	This was discussed in the February 18th public meeting and believed resolved.
3.3.1	5	NEI 08-08 section 3.3.1 explicitly mentions RG 4.21 Section A-1 but does not mention the other sections of Appendix A. 1. Please describe the relevance of the guidance of other sections of RG 4.21 Appendix A to NEI 08-08.	Deleted the specific reference to Section A-1 in parentheses. The reference is "(Reference 5)" as revised in revision 1 to NEI 08-08.	This was discussed in the February 18th public meeting and believed resolved.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.5.2	7	NEI 08-08 3.5.2 provides guidance for the applicants regarding actions to be taken following an event. It does not include an evaluation of the extent of condition/applicability to related facility operations noted in RG 4.21 regulatory position 1.6. 1. Please describe how NEI 08-08 addresses the extent of condition considerations discussed in RG 4.21 RP 1.6.	RG 4.21 regulatory position 1.6 is addressed in NEI 08-08 section 3.5 Review of Operational Practices. The extent of condition considerations in RG 4.21 regulatory position 1.5 are described in 3.5.2 *[(1) whether procedures, equipment, and/or operator errors contributed to the event and releases* i.e. apparent root cause; *(2) identify immediate and long term corrective actions* i.e. immediate and interim corrective actions as required by the site corrective action program] Revisions to Section 3.5.2.b in revision 1 to NEI 08-08 address this concern: "Evaluation of the extent of condition/applicability to similar related facility operations", Also note that Appendix A to NEI 08-08 would be completed by the COL applicant.	Resolved with revisions to section 3.5.2 of revision 1 of NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
App-A	A-3	NEI 08-08 does not discuss maintenance/surveillance of building seams, penetration seals. While 08-08 does discuss the implementation of a surveillance program, it is otherwise completely silent with respect to penetration integrity. The only place joint integrity inspection is noted is in Rad Waste pipe trenches. Please describe the surveillance and maintenance requirements with respect to below grade building seams and pipe/conduit penetration seals.	Other site programs and procedures, such as those implementing the Maintenance Rule, address maintenance and surveillance of building seams, penetration seals, etc. Revisions to Section 3.1 (()) of revision 1 to NEI 08-08 should be broad enough to address this. Also note the text of the last paragraph of Section 2: "This template recognizes that other site programs, such as the maintenance and surveillance program, and radiation protection program, help to minimize contamination of the facility and the environment." See the last item in Appendix A: "Describe the criteria that govern the frequency of performing periodic visual inspections of areas such as; the piping in the radwaste pipe trenches to check for leaks, the floor/wall expansion joints in the radwaste pipe trenches, accessible building seams, to ensure that no spills or leaks enter unmonitored areas beneath the floors and foundations."	Resolved in revision 1 and 1A to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.5 4.1 4.2	6, 7 & 8	The introduction to NEI 08-08 states that the site specific information provided in the double parentheses will be provided by the applicant as specified in FSAR Section 13.4. NEI 08-08 contains ten locations where site specific information is identified by the use of double parentheses. 1. Verify, as stated in Section 2 of NEI 08-08, that the COL applicant will provide the site specific information indicated in the portions of the template identified by double parentheses at Milestone 2 (prior to initial receipt of nuclear fuel) of the Operational Radiation Protection Program. 2. Since the information called for in the double parenthesis for Section 3.5.1 does not cover the information described in Section 3.5.2, relocate the information in the double parenthesis to the end of Section 3.5 and change the reference in this double parenthesis from 3.5.1 to 3.5. 3. Add double parentheses to Sections 4.1 and 4.2 specifying that the COL applicant should provide site specific information for the material described in those sections.	1. The milestone for implementation has been changed to "fuel load"(Radiation Protection Milestone 3) in Section 1, 2, & 4.3 of Revision 1 to NEI 08-08 2. The use of (()) has been reviewed for all of revision 1 of NEI 08-08	Resolved with revision 1 of NEI 08-08.
3.1.1 4.1.1 4.3	3, 7 & 8	Clarify the difference between the information requested in the paragraphs identified by "Note" and the information requested by the double parentheses. The format of the "Notes" should be consistent in each section where they are listed.	Notes identify the (already) known location of information. (()) require the (as yet to be developed) site-specific information The use of (()) has been reviewed for all of revision 1 to NEI 08-08	Resolved with revision 1 of NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.3	5	Modify the title of Section 3.3 to read "Minimize the Probability of the Release of Contamination from Undetected Leaks."	Changed to "Minimize the **Potential** for..." Title of NEI 08-08 section 3.3 is supposed to correspond to RG 4.21 RP 1.4. Resolved in revision 1 of NEI 08-08.	This was discussed in the February 18th public meeting and believed resolved.
3.4	5	Modify the title of Section 3.4 to read "Reducing the Need for Decontamination of Equipment and Structures."	The title has been revised in revision 1 to NEI 08-08 Title of NEI 08-08 section 3.4 is supposed to correspond to RG 4.21 RP 1.5	This was discussed in the February 18th public meeting and believed resolved.
5.1.2	9	Section 5.1.2.b requests that the COL applicant evaluate the potential for detectable levels of licensed material from planned releases. It is unclear from reading this section how the COL applicant is to evaluate the potential for these detectable levels of licensed material resulting from planned releases. 1. Modify this section to clarify what specifically the COL applicant is being asked to evaluate.	Modified section 5.1.2 b of revision 1 to NEI 08-08 to state " Note: Applicants should use the first 5 years of effluent release data to perform the evaluation in section 5.1.2.b. " Revision 1A added the following: "This time frame allows the licensee to obtain statistically valid data sets for radioactive effluent releases and for on-site ground water monitoring samples over time, while the plant completes at least one refueling outage. Licensees will perform on-site ground water monitoring throughout the plant's operation, beginning at initial fuel load."	Resolved in revision 1A to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
4.3.2	8	Suggest modification of text to include reference to transport characteristics and eliminate the word predominant (too vague). "The site characterization of geology and hydrology will be reviewed to ensure an understanding of ~~predominant~~ groundwater flow and transport characteristics based upon this final site configuration."	With the issues related to 4.1.(above) this issue should have also been addressed The discussion related to predominant flow pathways on 2-18-2009 addressed this issue.	This was discussed in the February 18th public meeting and believed resolved.
5.2.3	9	Insert the word "potential" before the word "hazard" in the second line of Section 5.2.3.	This revision has been made in revision 1 of NEI 08-08.	Resolved in revision 1 of NEI 08-08.
4.1.2	7 (8)	Define "release scenarios." Are these meant to be an analysis of potential events (leaks, spills and groundwater contamination?	Replaced *"scenarios"* with *"pathways"* in revision 1 of NEI 08-08.	Resolved in revision 1 of NEI 08-08.
6.1.1	10	Section 6.1.1 specifies that the COL applicant is to identify significant radioactive components used in the facility and the waste that will result from operations and processing. 1. Clarify what is meant by "significant."	Revisions were made to address this issue in section 6.1.1 of revision 1 to NEI 08-08. Clarification was provided by example: "(for example the replacements of steam generator, reactor head, pressurizer, reactor coolant pump.)"	Resolved in revision 1A of NEI 08-08.
6.2.2	11	Section 6.2.2 specifies that the COL applicant is to perform periodic assessments of the waste stored onsite. 1. Clarify what is meant by "periodic." 2. What guidance governs the assessment?	Periodic is defined by licensee. The assessment is to enable the licensee to evaluate on-site storage capacity based on generation rate and potential changes in future disposal requirements and availability. References were added for RIS 2008-32 and/or EPRI interim storage guidelines. Periodic is addressed by the references that were added.	Resolved in revision 1 of NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4.a	3	Is it possible to better define the term "reasonably expected?" Is it intended to mean a scenario that could result in an uncontrolled, unmonitored release?	A note was added to address reasonably expected. NOTE: "reasonably expected" takes into account the maintenance history, condition, or age of the SSC as determined during the evaluation of the SSC described in this step and could result in an uncontrolled release to the environment by some means other than an ODCM-credited release point. Reference 6 IE Bulletin 80-10 was also added to revision 1A. Addition text was also added to 3.1.4.a: "(For additional examples of systems that could become contaminated see Reference 6)" Section 3.1.4.a of NEI 08-08 revision 1B was revised as follows and making this a note for greater visibility: **"Note:** For additional examples of systems that could become contaminated see IE Bulletin No. 80-10, Contamination of Non-Radioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment, (Reference 6)."	Resolved in revisions 1A and 1B to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
		What is the threshold value to be used for notification of State/Local stakeholders when an offsite leak/release is detected?	Notification of State/local stakeholders is not part of NEI 08-08. Voluntary communication is covered in NEI 07-07 Section 2 was specifically excluded from NEI 08-08. The industry however remains committed on a voluntary basis to communication as described in Section 2 of NEI 07-07. There is no requirement for this in RG 4.21 or 10 CFR 20.1406. A note was added to Section 2 of revision 1 B of NEI 08-08. "**Note:** Section 2 of NEI 07-07 provides guidance on voluntary communication that is not part o the guidance provided in NEI 08-08."	Resolved in revision 1B of NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4.g	4	What is the purpose of the periodic reviews SSCs? Is periodic scoping to add new systems, structures, and components (SSCs) or elevate concern for existing SSCs IAW Section 8.2 of the EPRI Guide TR1016099, Groundwater Protection Guidelines for Nuclear Power Plants, January 2008 (Public Edition)	Yes. Periodic review is to update the evaluations to reflect aging of equipment, operational and maintenance history, and to ensure that the licensee's understanding of their potential for inadvertent contamination of the ground water reflects current conditions. Clarifying language was also added to Section 2 of revision 1 to NEI 08-08: "The applicant's program involves an initial and periodic evaluation of the facility SSCs, work activities, and generic issues. The frequency of the evaluation should reflect factors that affect the likelihood and potential consequences from an inadvertent or unintentional loss of radioactive material to the environment." A note was added to section 3.1.4 of revision 1B of NEI 08-08 as follows: **"Note:** Licensee should provide justification for the selected period for reviewing SSC's."	Resolved with the changes to section 3.1.4 in revision 1B. Also note the changes to Section 2 of revisions 1 and 1 A of NEI 08-08.
4.3	8	Will the post-construction site characterization analysis (Final CSM) address the use of chemicals that can affect radionuclide transport in the surface and subsurface zone?	Use of chemicals on-site is governed by federal, state, and local regulations and cannot be appropriately addressed in NEI 08-08. The site conceptual model is updated periodically to reflect changes in site conditions.	This was discussed in the February 18th public meeting and believed resolved.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.2.2.c	4	More clearly explain or define clearly the term "analytical sensitivity requirements." Specify who are the "external stakeholders" that are responsible for the analyses.	Earlier in 3.2.2 c, the applicant establishes the required sensitivity for the analytical method. "External stakeholders" are site-specific and cannot be specified in NEI 08-08. A clarifying note to Section 3.2.2.c was added in revision 1A to NEI 08-08 to address this issue. "**Note**: Analytical sensitivity levels are typically the Lower Limits of Detection (LLD)/Minimum Detectable Activity (MDA) and external stakeholder's (State & local authorities) LLDs or MDAs will vary from site to site."	Believe this to have been resolved with revisions to revision 1A to NEI 08-08.
4	7	This section proposes developing and updating a conceptual site model (CSM) but without describing the objectives of the modeling and how to apply it to minimizing contamination. Also, this section should address the connection between this proposed ground water protection initiative and SRP 2.4.12 and 13. There are many parallel and duplicate efforts between the two documents. Clarify where responsibility is described.	As stated in 4.1.1, the objective of the site conceptual model is so that the applicant can understand the "...predominant ground water flow characteristics based upon current site conditions."	No change This issue is resolved with the comments provided here.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
4.1.1.d.iii	7	NEI 08-08 should clarify who should be responsible for revising the CSM in cases there are changes of off-site water uses or ground water pumping rates.	The applicant is responsible to ensure that the site conceptual model continues to be valid. As indicated in the Note under 4.1.1 above, the licensee retains a professional geologist/hydrologist to perform this function. The source of the data is a level of detail not appropriate for a template. Additional information could be obtained from regulatory agencies that permit groundwater production wells as a part of their regulatory required reporting of withdrawal volumes. The assessment of such usage still is subject to the review of the professional hydrologist.	No change This issue is resolved with the comments provided here.

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New Comments From 3-12-09 Meeting

Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4 Note		The term "inadvertent" is used in several places without defining it. It seems that this term is used for any potential contaminations rather than 'radiologically significant" contamination. Please clarify what is meant by the term. (RHEB)	The common usage of the word *inadvertent* is: "Unintentional, unintended, not deliberate, involuntary, chance, not premeditated, unplanned, accidental" The note was revised in Section 3.1.3 as follows **"Note**: A 'credible mechanism' for the licensed material to reach ground water is considered one wherein the failure of a single barrier between the SSC and the environment that could result in inadvertent or unintentional contamination of ground water or native soil." The word "unintentional" was also added in several places in the revision 1A to NEI 08-08 for additional clarity.	Changes in revision 1A of NEI 08-08 resolved this issue. We believe this issued to have been resolved based on the 3-25 public meeting.
4.2	9	Is this monitoring system for groundwater monitoring or facility leakage monitoring or for both? It appears that this for Groundwater contamination monitoring, thus recommend the following changes: Insert "groundwater" in the first sentence of each section (4.2.1 & 4.2.2 prior to the word monitoring. (RHEB)	Section 4.2 of revision 1A offers clarifying language as following: "4.2.1 The site ground water monitoring systems will be deployed to support the early detection of leakage and contaminant migration." … "4.2.2 The site procedures for the ground water monitoring program will include a program for periodic sampling of ground water close to the potential source to verify the integrity of the system."	Changes in revision 1A to NEI 08-08 resolved this issue. We believe this issued to have been resolved at the 3-25 public meeting.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
2	2	The revised information in section 2 of Draft revision 1 still did not clearly convey how to use the EPRI and NEI 07-07 Suggest wording as follows in the 3rd paragraph to Section 2 of NEI 08-08 for the detail on the relevant sections of 07-07: "For new reactor applications the technical basis for the program for early detection of leakage is the Industry Ground Water Protection Initiative-Final Guidance Document NEI 07-07 Section 1.0 Ground Water Protection Program." The EPRI Groundwater Protection Guidelines provides <u>detailed</u> technical guidance in the accomplishment of NEI 07-07 and NEI 08-08, and should be used to implement a comprehensive approach to the operational aspects of the new reactor GPI. (CHPB).	This issue was addressed above on page 1 of this document. The revisions described there resolve this suggested wording. Also note that the use of the word "should" was reviewed in the context of NEI 08-08 as suggested by the NRC staff during the public meeting of 3-25-2009. This passage currently reads as follows: "EPRI TR-1016099 provides a detailed technical basis in the accomplishment of NEI 07-07 and NEI 08-08, and <u>should</u> be used to implement a comprehensive approach to the operational aspects of groundwater protection for new reactors."	The changes in revisions 1A and 1B of NEI 08-08 should resolve this issue.
3.5.2	7	The term "significance of the event" may take on additional meaning with RG 4.22 and 10CFR20.1406(c) which will direct that licensees evaluate leaks or spills which will have a significant impact on decommissioning.(CHPB)	This additional information although noteworthy in a future reference would not at this time require changes to NEI 08-08. This additional guidance will need to be addressed when it is issued.	No Changes were needed at this time. We believe this issued to have been resolved based on the 3-25 public meeting .

Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
2 3.1.1	2,3	COL applicants/holders who commit to a certified design approved prior to 8/20/1997 or where the COL holder will establish site specific design features to comply with 10CFR20.1406 (a), should clearly understand that the COL FSAR should identify these design features not NEI 08-08.(CHPB)	This issue was resolved above on page 7 of this document.	Changes in Revision 1A of NEI 08-08 have resolved this issue. We believe this issued to have been resolved at the 3-25 public meeting.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
App-A	A-3	As noted on page 9 of 17 of the previous issued comments: NEI 08-08 does not discuss maintenance/surveillance of building seams, penetration seals. When describing the features to consider include this feature in the narrative under 3.1. (3/12/09) Describe what is done for inaccessible building seams. (3/25/09-NRC Staff Comment) (CHPB)	As noted on page 10 of this document this was addressed as follows: See the last item in Appendix A: "Describe the criteria that govern the frequency of performing periodic visual inspections of areas such as; the piping in the radwaste pipe trenches to check for leaks, the floor/wall expansion joints in the radwaste pipe trenches, accessible building seams, to ensure that no spills or leaks enter unmonitored areas beneath the floors and foundations. The use of remote monitoring is considered for areas that are not readily accessible or frequently accessed."	Resolved in revision 1A and 1B to NEI 08-08.
5.1.2b	9	Include the phrase, "As a minimum"; in the note when describing the evaluation time period for effluent release data. (CHPB)	As the NRC comment is worded, this means that a licensee would have to use **at least** 5 years of data. It also can be interpreted that one could prolong doing the evaluation for an extended period beyond the 5 years. This issue was resolved above on page 13 of this document. Also note that additional clarifying language was added to meet the intent of NRC staff suggestions at the 3-12-2009 public meeting.	Resolved in revision 1A to NEI 08-08. We believe this issued to have been resolved at the 3-25 public meeting

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
N/A	Page 13 of 15 of first set of com ment s	Notification of State/local stakeholders is not part of NEI 08-08. Voluntary communication is described in NEI 07-07 Section 2 was specifically excluded from NEI 08-08. Recommendation (26) from the Liquid Radioactive Release Lessons Learned Task Force Final Report September 1, 2006, (ML062650312) stated that Nuclear Power Plant licensees should consider entering into agreements with local and state agencies to voluntarily report preliminary information on significant radioactive liquid releases that do not otherwise trigger reporting requirements. Although not necessary for the COLA review, the establishment of an agreement or threshold for notification of external stakeholders is an essential aspect of the NEI 08-08 template. Operational practices will be established to ensure a consistent approach with the current fleet of operating reactors and the new plants being constructed. The staff feels strongly that a commitment to entering agreements with external stakeholders consistent with the voluntary practices of NEI 07-07 for notification improves the public awareness and demonstrates transparency. Will the NEI 08-08 have any commitment or requirement for stakeholder notification?(CHPB) **Additional discussion of NEI 07-07 commitment applicable and listed for plants constructed after 2006. (3/25/09 NRC staff)**	This issue was addressed above on page 15 of this document. It is not anticipated that NEI 08-08 will have any commitment or requirement for stakeholder notification. Voluntary communication is covered in NEI 07-07 Section 2 was specifically excluded from NEI 08-08. The industry however remains committed on a voluntary basis to communication as described in Section 2 of NEI 07-07. There is no requirement for this in RG 4.21 or 10 CFR 20.1406 A note was added to section 2 of revision 1B of NEI 08-08 resolving and clarifying this issue: "**Note:** Section 2 of NEI 07-07 provides guidance on voluntary communication that is not part o the guidance provided in NEI 08-08."	Changes in NEI 08-08 revision 1B resolve this issue.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4.a	3	. 3.1.4.a still states "refueling water storage tanks, if outdoors". The statement in 3.3.1 is more accurate. Please revise to be consistent.(CHPB)	Changes are described on pages 1 and 8 of this document. See the note in Section 3.1.4 of revision 1 and 1A to NEI 08-08: **"Note**: A 'credible mechanism' for the licensed material to reach ground water is considered one wherein the failure of a single barrier between the SSC and the environment that could result in inadvertent or unintentional contamination of ground water or native soil." The lists of examples. in 3.1.4.a and 3.3.1 are not meant to be exhaustive or exact duplicates of each other. The language is taken from NEI 07-07.	The changes made are described on pages 1 and 8 of this document. This issue was resolved on 3-25-09, noting that this is from NEI 07-07 resolved this issue.
3.1.4.a	3	Although Reference 6 was added, there were no discussions of the IE Bulletin 80-10 systems and considerations that would also be applicable to 10CFR20.1406 within NEI 08-08.(CHPB)	This issue was addressed above on page 14 of this document. Section 3.1.4.a of NEI 08-08 revision 1B was revised as follows and making this a note for greater visibility: **"Note:** For additional examples of systems that could become contaminated see IE Bulletin No. 80-10, Contamination of Non-Radioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment, (Reference 6)."	Resolved in revision 1A and 1B to NEI 08-08.

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New Comments From 3-25-09 Meeting

Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4.a	3	3.1.4.a still states "refueling water storage tanks, if outdoors". The statement in 3.3.1 is more accurate. Please revise to be consistent.(CHPB) NEI 08-08-R1a states on page 3 "Examples of SSCs of interest include: refueling water storage tanks, **if outdoors**;…". This statement should be change to : "Examples of SSCs of interest include: refueling water storage tanks if outdoors, in contact with soil or imbedded in concrete;…". This would make it more consistent with 3.3.1, and be closer to the actual intent of RG-4.21.	This issue was addressed above on page 24 and 14 of this document. The language is taken from NEI 07-07.	This issue was discussed on 3-25-09; since the language is from NEI 07-07, this is resolved.
3.1.4.a	3	Although Reference 6 was added, there were no discussions of the IE Bulletin 80-10 systems and considerations that would also be applicable to 10CFR20.1406 within NEI 08-08.(CHPB)	This was discussed on page 24 and 14 of this document. Section 3.1.4.a of NEI 08-08 revision 1B was revised as follows and making this a note for greater visibility: **"Note:** For additional examples of systems that could become contaminated see IE Bulletin No. 80-10, Contamination of Non-Radioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment, (Reference 6)."	Resolved in revision 1B to NEI 08-08.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
3.1.4.g	4	The basis for the determination of an adequate periodic frequency is not clearly defined. EPRI TR-1016099 contains the following statement: Guidance Statement 8.2a [BASELINE]: *Establish and document a review cycle for the identification of potential sources of subsurface contamination. Document the rationale for selecting the frequency and methods of reviews. The frequency of the review cycle should not exceed five years.* **Recommend that a statement be added to the effect that if the periodic review frequency exceeds that noted in TR-1016099, that the applicant provide justification for a deviation from the bases document recommendation**	Section 3.1.4.g of NEI 08-08 revision 1B was revised by the addition of a note as follows: The introduction to section 3.1.4 of NEI 08-08 states:The applicant will evaluate all SSCs that contain or could contain licensed material and for which there is a credible mechanism for the licensed material to reach ground water consistent with Reference 3 and Reference 4 and will… Reference 4 is the EPRI Groundwater Protection Guidelines for Nuclear Power Plants, January 2008 (Public Edition) and identifies those factors that should be considered by the applicant in determining the appropriate period for review of SSCs. The note was added after 3.1.4.g. ' Licensee should justify the selected period for review of the SSCs."	Resolved in revision 1B to NEI 08-08.
	2	EPRI TR-1016099 provides detailed technical **bases** in the accomplishment of NEI 07-07 and NEI 08-08, and **should be** used to implement a comprehensive approach to the operational aspects of groundwater protection for new reactors. What if another technically sound, documented approach comparable to the program outlined in EPRI TR-1016099 is used? THEN this program shall be submitted to the NRC for review as part of the COL application and describe how it complies with the RG 4.21 regulatory position. Please add to template.	This is a licensing issue and the level of detail is beyond the scope of the template. If another technically sound program exists, the applicant should provide the reference to this as part of the COL application.	No revisions were made to NEI 08-08. This issue is resolved with the comments provided here.

Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
General		The template talks about using an approach that blends a process of risk-informed decisions, ALARA, practicality and cost effectiveness in considering the incorporation of design features and operational program in achieving the objectives of the template. However, what comes to mind is that most of features described in the template will be difficult to implement, a point noted in the template, and therefore costly and possibly excluded on cost considerations alone. As a result, the template should note that all reasonable engineered measures and operational practices should be considered in achieving the objectives of the template, but that cost alone should not be the only factor used in determining whether such measures are implemented.	NEI appreciates the NRC's comment. However, this issue is philosophical in nature rather than requiring revisions to NEI 08-08. As stated in section 2: "NEI 08-08 identifies the base operational program to supplement the standard designs."	No revisions were made to NEI 08-08 This issue is resolved with the comments provided here.

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Section	Page	NRC Comment or Question	NEI Comments	Resolved (Y/N)
	1, 2	NEI 08-08 contains inconsistent direction regarding the technical bases for NEI 08-08 and insufficient direction regarding the use of guidance other than EPRI TR-1016099. On page 1 it notes: EPRI Report 1016099, dated January 2008 (Reference 4) provides one acceptable approach for an effective ground water protection program and provides a **technical basis** for this template. On page 2 it notes: The technical basis for the program for early detection of leakage for new reactor applications is the Industry Ground Water Protection Initiative-Final Guidance Document NEI 07-07 Section 1.0 Ground Water Protection Program. EPRI TR-1016099 provides detailed technical **guidance** in the accomplishment of NEI 07-07 and NEI 08-08, and **should be** used to implement a comprehensive approach to the operational aspects of groundwater protection for new reactors.	Section 2 of NEI 08-08 in revision 1B was revised as follows to resolve any potential inconsistency: "EPRI TR-1016099 provides a detailed technical basis in the accomplishment of NEI 07-07 and NEI 08-08, and should be used to implement a comprehensive approach to the operational aspects of groundwater protection for new reactors."	Resolved in revision 1B to NEI 08-08.

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