Interim Staff Guidance ISG-022 Construction Impacts

ISG-022 Comment Resolution Document
[Insert Date]

Summary and Analysis of Public Comments on the Interim Staff Guidance ISG-022

A. Overview of Public Comments

The NRC issued the proposed COL-ISG-022, *Impacts of Construction of New Nuclear Power Plants on Operating Units at Multi-Unit Sites*, in the *Federal Register* on February 14, 2011 (76 FR 8383). The period for submitting comments on the proposed COL-ISG-022 closed thirty days later.

Types of Comments

The NRC received questions and editorial comments from four commenters. Comment submissions one, two, and three were received anonymously. Comment submission four was provided by the Nuclear Energy Institute (NEI).

Table 1. Comment Submissions

Comment Submission No.	Commenter	ADAMS Accession No.
1	Anonymous	ML110770041
2	Anonymous	ML110770042
3	Anonymous	ML110800541
4	NEI	ML11187A199

The comment summaries and the NRC's response for these four submissions are addressed below.

Comment Identification Format

All comments are identified uniquely by using the format [X]-[Y], where:

[X] Represents the comment submission identification number (refer to the comment submission table above); and,

[Y] Represents the comment number, which the NRC assigned to the comment.

B. Comment Identification

The comments are identified as follows:

Comment 1-1: Please clearly explain how 10 CFR 50.59 applies to new plant construction in terms of protecting an operating plant. This regulation pertains only to changes to an operating [licensed] facility. It seems therefore, that new plant construction is not a change to the other licensed facility and as such 10 CFR 50.59 does not apply. It seems that 10 CFR 50.59 applies only to the licensed facility experiencing the change?

Comment 1-2: Is the NRC changing the definition of "facility"? The NRC defines "facility" as "any utilization facility as defined [in part 50 of this chapter]. In cases for which a license is issued for operation of two or more facilities, facility means all facilities identified in the license." In the case of new plant construction, there is more than one license on site. The definition of facility addresses each license separately and so does 10 CFR 50.59?

Comment 1-3: Changes "off-site" are referenced on Page 4 in the first paragraph; Why? The new plant construction is not occurring off site. This is confusing. What are you trying to express? The regulatory meaning is not clear. What regulation is required to be complied with for construction of new plants in close proximity [on-site] to operating nuclear plants such that the operating plant is protected? This really needs to be clearly written and clearly defined and a few examples provided. This draft document has not satisfied that very simple goal?

Comment 1-4: What regulation requires review for an operating Unit when an off-site change may violate the operating Unit's design basis? Is it 10 CFR 50.59?

Comment 2-1: The first paragraph on page 4 refers to Technical Specification change processes for protection of operating units during construction of new plants on site. This is very confusing. Please clarify and provide at least one example. I was under the impression that safety systems that require a Tech Spec cannot be shared between Units which would require a Tech Spec Change when tied in during construction?

Comment 2-2: The first Paragraph on page 4 includes 10 CFR 73.58 with no discussion. Why is this included?

Comment 2-3: How does 10 CFR 73.58 relate to 10 CFR 52.79(a)(31)? 10 CFR 52.79(a)(31) refers to [limiting conditions of operation] LCOs; It is my understanding that security requirements are not currently included in the Operating Technical Specifications or at least they do not have LCOs. The emergency preparedness change process does not have LCOs; so why is this mentioned?

Comment 2-4: The construction evaluation plan discussed on page 8 is required to be submitted as part of the license application? This is not in the current regulation? Or is this to be reviewed by the Resident Inspector on the construction site?

Comment 3-1: How does 10 CFR 50.79(a)(31) require protection of spent fuel in spent fuel pools during construction activity of a new plant? Most, perhaps all, NRC approved Technical Specifications have no LCO for spent fuel or for spent fuel pools.

Comment 3-2: What regulation protects the operating nuclear plant from construction impacts during construction of a new plant when all nuclear fuel has been removed from the 'operating' reactor during refueling/maintenance? Tech Spec LCOs are not applicable when no fuel is in the reactor.

Comment 3-3: New plant construction is not a 10 CFR 50.59 change to an operating facility is it? The NRC has never changed the definition of facility to cover this has it?

Comment 4-1: Since the scope of 10 CFR 73.58 is beyond the impact of construction on SSCs important to safety, the references to 10 CFR 73.58 are confusing and should be deleted from the Purpose. The Purpose mentions 10 CFR 73.58, which is a change process that already has its own regulatory guidance.

Comment 4-2: The 10 CFR 50.59 process reference should be revised to also reference the Section VIII change process in the DCRs. Revise the first full sentence on page 4 to read: "This guidance presumes that additional mechanisms such as the 10 CFR 50.59 process, the Design Certification Rule Section VIII change process, the Technical Specification change process …"

Comment 4-3: The term "construction activity identification process" is vague. Revise the first bullet on page 8 and page 15 to read: "A discussion of the process and criteria used to evaluate the construction activities that may pose potential hazards to the SSCs important to safety for operating unit(s)."

Comment 4-4: The bullets in the second paragraph of page 8 really describe the information that should be included in the applicant's plan. Revise this paragraph to read: "COL applicants should provide the following construction impact evaluation plan information to demonstrate that the limiting conditions for operation of an operating unit are not exceeded in accordance with the requirements …"

Comment 4-5: An MOU or MOA between the COL applicant and the operating unit licensee should be required only if the companies are not the same and are not affiliated. If the COL applicant and the operating unit licensee are the same or affiliated, then the normal

management structure should be sufficient to ensure adequate communication. The first bullet on page 9 and the last bullet on page 15 should be revised to read: “A memorandum of understanding or agreement (MOU or MOA) between the COL applicant and the operating unit(s) licensee (unless they are the same or affiliated companies) as a mechanism for communications, interactions, and coordination to manage the impact of construction activities and to manage the safety/security interface including emergency programs.”

Comment 4-6: An implementation schedule appears to be unnecessary. Construction schedules are already required to be provided to NRC in accordance with 10 CFR 52.99(a). This bullet should focus on licensee plans to maintain the construction impact evaluation plan. The second bullet on page 9 and the first bullet on page 16 should be revised to read: “Discussion of plans for reviewing the construction impact evaluation plan on a recurring basis and ensuring it is maintained current as construction progresses.”

Comment 4-7: A COL applicant should be able to rely upon the actions of the existing unit licensee. Ultimately, the licensee is responsible for safety of its operating unit. Revise the second full paragraph on page 10 to read: “Completion of activities that are determined to be the responsibility of the operating unit(s) should not form the basis for decision making on issuance of a COL. However, the COL applicant must demonstrate that the existing plant licensee has plans to integrate consideration of such activities into the planning and decision making functions of the operating unit.”

Comment 4-8: Change “several” to “two or more” since this ISG applies to applicants for as few as two new nuclear power plants. Revise the third full paragraph of page 10 to read: “In the situation where a COL application is for construction and operation of two or more new nuclear power plants on a site where an existing operating unit may or may not be located:”

C. Comment Responses

1. Comments regarding the applicability of 10 CFR 50.59.

Comment: *Please clearly explain how 10 CFR 50.59 applies to new plant construction in terms of protecting an operating plant.* (1-1)

Comment: *Does 10 CFR 50.59 require review for an operating unit when an off-site change may violate the operating unit’s design basis?* (1-4)

Comment: *Is new plant construction a 10 CFR 50.59 change to an operating facility?* (3-3)

NRC Response: In this context, these 10 CFR 50.59 comments are out-of-scope of this ISG because the comments address a matter – changes to a new unit under construction – which is not the subject of the ISG. This ISG addresses how the staff is to evaluate compliance with 10 CFR 52.79(a)(31) dealing with impacts of proposed combined license construction activities on operating units at a multi-unit site. 10 CFR 50.59, by itself, is not an appropriate process for an operating unit licensee to use to determine protective or mitigative actions to preclude potential risks from construction of a new plant. The process in 10 CFR 50.59 is used to determine whether a proposed change to the facility by a licensee may be implemented without prior NRC approval. The 10 CFR 50.59 process may be used by the unit under construction for proposed changes to that unit or by the operating unit for proposed changes to the operating unit. An operating unit would not be expected to use the 10 CFR 50.59 process to determine if a new plant could be constructed on the same site because the combined license application, review, and approval process under Subpart C of 10 CFR part 52 is the correct process for that determination. If the siting of a new unit on a multi-unit site requires the permanent relocation, for example, of a portion of the protected area boundary (PAB) fence and associated security features for the operating unit, the operating unit would be expected to use, at a minimum, the 10 CFR 50.59 process to determine if prior NRC approval is required to implement that change at the operating unit. No changes were made to the ISG as a result of these comments.

Comment: *The reference to 10 CFR 50.59 should include also include a reference to Section VIII of the design certification rules.* (4-2)

NRC Response: The NRC agrees with this comment. Section VIII of the design certification rules address the change processes relevant to that certified design. The ISG has been revised accordingly.

2. Comments regarding the definition of “facility”.

Comment: *Is the NRC changing the definition of facility?* (1-2)

Comment: *The NRC has never changed the definition of facility to cover this, has it?* (3-3)

NRC Response: The staff interprets the comments as asking whether the staff intends to change its interpretation of the definition of facility. The NRC has not changed the definition of “facility” for this guidance. This ISG is referring to a “unit”, which is a single nuclear power reactor and its associated SSCs. It should be noted that for many multi-unit sites, the licensee maintains a common FSAR that applies to all of its units; however, these FSARs identify specific differences between units. When assessment processes are utilized, the focus is on the specific unit that is undergoing a change, modification, or activity; thus, the terms “facility” and “unit” are meant to be used interchangeably in this context with the

common and singular focus being to ensure the safety of each operating unit. Such focus is consistent with the requirement in 10 CFR 52.79(a)(31) to provide an evaluation of the potential hazards to structures, systems, and components important to safety for the operating units on a multi-unit site. The ISG should be read as referring to the single master FSAR for those facilities that use a single, master FSAR, or to the FSAR for each licensed unit, depending upon the particular circumstance of each multi-unit facility. Further, licenses are issued for individual units even if an application is submitted for multiple units. Even if an FSAR describes multiple units, the evaluation of potential risk from construction should focus on each operating unit that may exist at the site regardless of whether there is a common "master" FSAR or an FSAR for each unit. No change was made to the ISG as a result of these comments.

3. Comments regarding the definition of "off-site".

Comment: *Why are changes "off-site" referenced on Page 4 in the first paragraph?* (1-3)

NRC Response: Changes and potentially hazardous activities that occur both on and off-site are evaluated by each licensees' operational programs to ensure the continued safety of each operating unit. Activities associated with the construction of new nuclear power plants on multi-unit sites must be evaluated by the COL applicant for potential hazards on the structures, systems, and components important to safety for the operating unit(s) on that site in accordance with 10 CFR 52.79(a)(31); and by the operating unit licensee in accordance with 10 CFR 50.59 and 10 CFR 50.65. No change was made to the ISG as a result of this comment.

Comment: *What regulation requires review for an operating Unit when an off-site change may violate the operating Unit's design basis? Is it 10 CFR 50.59?* (1-4)

NRC Response: This comment is out-of-scope of this ISG because it addresses a matter – review of an operating unit when an off-site change may violate the operating unit's design basis – which is not the subject of the ISG. The ISG is intended to provide guidance to the staff necessary to evaluate compliance with 10 CFR 52.79(a)(31). No change was made to the ISG as a result of this comment.

4. Comments regarding the applicability of Technical Specifications.

Comment: *The first paragraph on page 4 refers to Technical Specification change processes for protection of operating units during construction of new plants on site. This is very confusing. Please clarify and provide at least one example. I was under the impression that safety systems that require a Tech Spec cannot be shared between Units which would require a Tech Spec Change when tied in during construction?* (2-1)

NRC Response: The intent of the discussion about TS change processes and 10 CFR 50.59 processes was to discuss how construction activities that impact on the licensing basis for an operating unit must be addressed. Technical specifications, by themselves, are not the means to protect the operating unit during construction. If a new unit wished to share a system subject to TS with an already licensed unit, identified changes to the shared TS would require evaluation and revision for both units. No change was made to the ISG as a result of this comment.

Comment: *10 CFR 52.79(a)(31) refers to Limiting Conditions for Operation (LCOs); It is my understanding that security requirements are not currently included in the Operating Technical Specifications or at least they do not have Limiting Conditions for Operations (LCOs). Additionally, the emergency preparedness (EP) change process does not have Limiting Conditions for Operations (LCOs); so why is this mentioned? How does this relate to new plant construction? How does it relate to 10 CFR 52.79(a)(31)?* (2-3)

NRC Response: Security Programs and Emergency Programs do not have technical specifications limiting conditions for operations. Both of these programs do have change processes and both could be impacted by on-site and off-site construction activities. These programs are referenced within ISG-022 because they are part of the operational programs of the current operating plant(s) that may require revisions or the imposition of compensatory, protective, or mitigative actions to reflect the additional personnel and activities during the construction phase of the new nuclear plant(s). No change was made to the ISG as a result of this comment.

Comment: *How does 10 CFR 50.79(a)(31) require protection of spent fuel in spent fuel pools during construction activity of a new plant? Most, perhaps all, NRC approved Technical Specifications have no LCO for spent fuel or for spent fuel pools.* (3-1)

NRC Response: The NRC disagrees with this comment. The premise of the comment is incorrect in that there are no LCOs for spent fuel or spent fuel pools. There are technical specification requirements on spent fuel pool water level at all times when there is spent fuel located in the spent fuel pool (i.e., all MODES) and associated LCOs if the water level cannot be maintained. 10 CFR 52.79(a)(31) requires, in part, evaluation and management of potential hazards to SSCs important to safety of operating units resulting from construction activities. This includes the evaluation and management of potential hazards to SSCs important to maintaining the safety of the spent fuel located at the current operating plant spent fuel pool and independent spent fuel storage installations. 10 CFR 52.79(a)(31) also requires, in part, a description of the managerial and administrative controls to be used by the constructing organization to provide assurance that LCOs are not exceeded at the current operating plant. Changes and potentially hazardous activities that occur both on and off-site are evaluated by each license holders' operational programs to ensure the continued safety of each operating unit. Activities associated with the construction of new nuclear

plants on multi-unit sites must be evaluated for potential hazards on the structures, systems, and components important to safety for the operating unit(s) on that site in accordance with such operating unit programs such as 10 CFR 50.59 and 10 CFR 50.65. No change was made to the ISG as a result of this comment.

Comment: *What regulation protects the operating nuclear plant from construction impacts during construction of a new plant when all nuclear fuel has been removed from the 'operating' reactor during refueling/maintenance? Tech Spec LCO's are not applicable when no fuel is in the reactor.* (3-2)

NRC Response: This comment is out-of-scope of this ISG because it addresses a matter – the responsibility of existing unit licensees to protect the operating unit from construction impacts when all nuclear fuel has been removed – which is not the subject of the ISG. This ISG addresses how the staff is to evaluate the COL applicant's compliance with 10 CFR 52.79(a)(31) dealing with impacts of proposed combined license construction activities on operating units at a multi-unit site. Construction, modification, or maintenance activities ongoing at the site regardless of their relationship to the new units (e.g., steam generator replacements) could increase the potential risk to the fuel. The technical specification(s) associated with spent fuel pool water level are applicable at all times when there is spent fuel in the spent fuel pool. No change was made to the ISG as a result of this comment.

5. Applicability of 10 CFR 73.58 to this process.

Comment: *The first paragraph on page 4 includes 10 CFR 73.58 with no discussion. Why is this included?* (2-2)

Comment: *How does 10 CFR 73.58 relate to 10 CFR 52.79(a)(31)?* (2-3)

Comment: *Since the scope of 10 CFR 73.58 is beyond the impact of construction on SSCs important to safety, the references to 10 CFR 73.58 are confusing and should be deleted from the Purpose.* (4-1)

NRC Response: The NRC agrees that the reference to 10 CFR 73.58, "Safety/security interface requirements for nuclear power reactors," is confusing and has therefore been deleted from the ISG where appropriate.

6. Comments regarding the Construction Evaluation Plan.

Comment: *The construction evaluation plan discussed on page 8 is required to be submitted as part of the license application? This is not in the current regulation? Or is this to be reviewed by the Resident Inspector on the construction site?* (2-4)

NRC Response: A Part 52 COL applicant should submit their construction impact evaluation plan information comprised of a description of the plan which addresses the six bulleted items identified in COL-ISG-022 to address the regulations at 10 CFR 52.79(a)(31). 10 CFR 52.79 is *Content of applications; technical information in final safety analysis report* and the NRC expects the information outlined in ISG-022 be submitted as part of the COL license application. The implementation, use and maintenance of the construction impact evaluation plan may be inspected by the resident inspector on the construction site. No change was made to the ISG as a result of this comment.

Comment: *The term "construction activity identification process" is vague.* (4-3)

NRC Response: The NRC agrees with this comment that the term "construction activity identification process" is vague. The ISG has been revised to read: "A discussion of the process and the criteria used to evaluate the construction activities that may pose potential hazards to the SSCs important to safety for operating unit(s)."

Comment: *The bullets in the second paragraph of page 8 of the ISG really describe information that should be included in the applicant's plan.* (4-4)

NRC Response: The NRC agrees with this comment because it is in fact information that is being sought by the staff to demonstrate compliance. The ISG has been revised to read: "COL applicants should provide the following construction impact evaluation plan information to demonstrate that the limiting conditions for operation of an operating unit are not exceeded in accordance with the requirements…"

7. Comment regarding the use of Memoranda of Understanding/Agreement.

Comment: *An MOU or MOA between the COL applicant and the operating unit should be required only if the companies are not the same and are not affiliated. If the COL applicant and the operating unit licensee are the same or affiliated, then the normal management structure should be sufficient to ensure adequate communication.* (4-5)

NRC Response: The NRC agrees with this comment because the staff believes that the management structure(s) of the same or affiliated companies will provide sufficient communication mechanisms to ensure proper coordination between the various licensees at the multi-unit facility. The ISG has been revised to read: "A memorandum of understanding

or agreement (MOU or MOA) between the COL applicant and the operating unit(s) licensee (unless they are the same or affiliated companies) as a mechanism for communication, interactions, and coordination to manage the impact of construction activities and to manage the safety/security interface including emergency programs."

8. Comment regarding the Use of an Implementation Schedule.

Comment: *An implementation schedule appears to be unnecessary. Construction schedules are already required to be provided to NRC in accordance with 10 CFR 52.99(a). This bullet should focus on licensee plans to maintain the construction impact evaluation plan.* (4-6)

NRC Response: The NRC agrees with this comment and believes there are already sufficient construction schedule reporting requirements. The ISG has been revised to read: "Discussion of the process for reviewing the construction impact evaluation plan on a recurring basis and ensuring it is maintained current as construction progresses."

9. Comment regarding COL Applicant Reliance of Unit Licensee Actions.

Comment: *Ultimately, the licensee is responsible for the safety of its operating unit. A COL applicant should be able to rely upon the actions of the [operating unit] licensee.* (4-7)

NRC Response: The NRC agrees with this comment because, as discussed in the ISG, there are regulatory mechanisms in place requiring existing unit licensees to ensure the safety of operating units. The ISG has been revised to read: "Completion of activities that are determined to be the responsibility of the operating unit(s) should not form the basis for decision making on issuance of a COL. However, the COL applicant must demonstrate that the existing unit licensee has plans to integrate consideration of such activities into the planning and decision making functions of the operating unit."

10. Comment regarding the Meaning of "Several" Units being "Two or More" Units.

Comment: *Change "several" to "two or more" since this paragraph applies to applicants for as few as two new nuclear power plants.* (4-8)

NRC Response: The NRC agrees with this comment because the term "several" is vague. The ISG has been revised to read: "In the situation where a COL application is for construction and operation of two or more new nuclear power units on a site where an existing operating unit may or may not be located."