

February 17, 2005
DRAFT Resolutions of Public Comments on
Draft RIS - Operability Determination Process

Codes used in this document for resolving comments

✓ = comment incorporated; X=comment not incorporated; ■ = NEI high-priority item
Comment Resolution by TOC (01-17-2005).wpd

GENERAL COMMENTS

(NEI)

1. Separate TS operability determinations from non-TS SSC functionality determinations

The draft guidance document mixes discussions of “functionality,” i.e., of non Technical Specification (TS) structures, systems, and components (SSCs), with discussions of “operability.” The evaluation of TS compliance based on an operability determination should be discussed separately from the evaluation of functionality for non-TS SSCs. We recommend reorganizing the document to separate these issues.

Resolution: Agree with separation, but limited rewrite required.

2. Although the guidance document is sometimes clear that actions associated with an “operability determination” are distinct from action associated with a “corrective action program,” it usually mixes the two concepts together.

Resolution: Please identify the problem areas. We will consider this.

3. TS operability determinations mixed with operability determinations associated with degraded/nonconforming conditions.

In some places (for example Sections 3.4, 3.5, and 5.8) the document mixes “operator determinations of TS operability”, which are made continually during plant operation by licensed operators, with “operability determinations,” which are associated with degraded/nonconforming conditions. This is a natural result of combining two Inspection Manual chapters, one on operability and the other on degraded/nonconforming conditions, into one chapter. Followup dialogue with licensees is needed to separate and clarify the guidance on these two concepts.

Resolution: Disagree, we don't think there should be a distinction, thus there is no need for a followup dialogue with licensees.

4. **The phrase “enter the LCO” (and variations of that phrase) is not correct.** An “LCO” is simply the statement of the lowest functional capability required by a TS to support continued operation, as defined by 10CFR50.36. Better phrases, which are sometimes used in the guidance document and which are consistent with the Standard Technical Specifications (STS), are either “declared inoperable” (which conveys intent) or “follow the applicable actions.”

Resolution: Agree

5. Consistent Use of RIS terms.....

The document should be reviewed and revised throughout to ensure that the terms OPERABLE/OPERABILITY, inoperable, functional/functionality, and “not functional” are used consistently and in the proper context.

Resolution: Agree with the premise.

6. We note that the scope references in the document include 10CFR50.65 (performance indicators) and the corrective action program (inferring 10CFR50 Appendix B), **but do not include 10CFR50.36.**

Resolution: Agree, but don't understand the comment reference to "(performance indicators)."

7. We believe the primary purpose of the document should be to discuss degraded/nonconforming conditions and how to disposition them. In fact, **the document's title could be changed to "Resolution of Degraded or Nonconforming Conditions (DNC) Affecting SSCs."** Operability determinations are only one of many elements associated with the DNC resolution process.

Resolution: Disagree, ID to precede resolution.

8. The terms "equipment" and "systems/components" are used through out the document. **The term "systems, structures, and components" (SSC) should be used.**

Resolution: Agree

(Kammer - General Comment- 1)

The revised guidance indicates that changes to installed field components or licensing basis can be made with primarily a 50.59 screening/ evaluation. By virtue of its silence on the requirements of 10CFR50,Appendix B, Section III Design Control, when facilitating changes to the facility as described in the RIS, **is it the NRC's intent that the 50.59 documentation defined in the text of the RIS supercedes the Design Control requirements of 10CFR50, Appendix B?**

Resolution: Don't understand Question. 50.59 considers Appendix B in decisions and vice versa, not supercedes.

(Kammer - General Comment-2) Please clarify the applicability of other Quality Assurance Program attributes described in 10CFR 50, Appendix B when discussing changes to the Licensing or Design basis for the facility via the nonconformance/ corrective action processes.

Resolution: What needs clarifying. Why? What are "nonconformance/ corrective action processes."

(Kammer Observation 1)

1. It has been clear that the NRC is moving towards Operability Reviews for SSC's outside Technical Specification related equipment. To simplify the RIS, the following should be considered.

Resolution: Not clear at all. In fact we are going the other way.

2. There is no statement within the Operability Definition in TS which indicate that this "definition" can only be used for Technical Specification related equipment (How has Technical Specifications cornered the market on the use of this term?).

Resolution: Disagree, only TS define Operability.

3. **Creating a parallel universe by using the term "Functional" or "Functional but Degraded" in lieu of Operable for SSC's not in Technical Specifications only complicates the development of this document** (As noted by the many comments).

Resolution: Disagree. Exists today. Confused today. We are fixing.

4. Recognition of the above further supports the deletion of the concept "Reasonable Assurance of Safety" which was absent in the RIS.

Resolution: Agree, delete "Reasonable Assurance of Safety." Guidance discussed "reasonable expectation" of operability. In enforcement cases, NRC/OGC uses "preponderance of evidence."

5. Response and Corrective actions (timeliness) could be judged by "Technical Specification related", Risk Significance and other selected factors by the licensee. For Technical Specification related SSC's, timeliness is well defined in the document for immediate and near term actions.

Resolution: O.K., agree.

(Kammer Observation 2)

The true measurement of Operable (or Functional) status is whether the SSC can perform its "design function" under all committed conditions (normal and accident). Selected SSC's also have a set of well defined safety functions to perform, which happens to be a subset of all "design functions" associated with an SSC. This could also be used as a discriminator for timeliness. **Simplification to a couple key definitions would go a long way in your efforts. Avoid multiple definitions for Function (e.g. Specified functions, Specific function).**

Resolution: Agree, give specific examples.

(NUGEQ)

1. Status as Guidance

In the Regulatory Issue Summary ("RIS") that would transmit the revised guidance to licensees, the Staff should clarify that the inspection manual provides guidance that may be useful in reviewing a licensee's program for addressing operability and degraded or nonconforming conditions, but does not constitute regulatory requirements. **NUGEQ suggests that the RIS also clarify, as the inspection manual explains in Section 1.0, "INTENT," that the guidance "may not be directly applicable at specific plants."** By providing this clarification, the NRC would make it clear that licensees are not required to revise current programs that manage equipment operability and resolution of degraded or nonconforming conditions. This clarification also would be consistent with the RIS statements that it "requires no action or written response on the part of an addressee," and that it does not impose a backfit (10 C.F.R. § 50.109).

Resolution: Agree, Appendix to MC 9900.

2. Operability versus Functionality We suggest that the proposed guidance include a section that addresses TS OPERABILITY and a separate section that addresses SSC functionality so that the Staff's expectations for both TS and non-TS SSCs are clear. The Staff proposes to combine the two inspection manuals that currently address (1) operability, and (2) resolution of degraded and nonconforming conditions. While NUGEQ believes that this would be an improvement over the current guidance format, the proposed guidance is now somewhat unclear in differentiating between those structures, systems, and components ("SSCs") that must remain OPERABLE to be in compliance with a plant's technical specifications ("TS") versus those SSCs that are not covered directly or indirectly by TS and must, therefore, be demonstrated functional (rather than OPERABLE). **We believe this would be a beneficial clarification to the guidance generally, and specifically for EQ equipment in that some electrical equipment within the scope of 10 C.F.R. § 50.49 is covered in TS and some is not.**

Resolution: Agree, need an NRC EQ person to help.

1.0 INTENT (new)

(NEI)

X1. It is not clear whether the purpose of the “Intent” section is (1) to describe the purpose of the guidance document or (2) to provide a high-level discussion of the purpose of operability determinations and the resolution of degraded/nonconforming conditions. If the former, all but paragraphs 5 and 6 could be deleted. If the latter, paragraphs 5 and 6 should be at the beginning of the section, and, more importantly, reworded to maximize consistency with the rest of the document.

Resolution: Disagree, except paragraph 5 is deleted because it is already in Section 5.0.

✓2 3rd para. may not recognize that operability is the capability to ensure that specified safety functions (i.e., the functions required for operability) can be performed

This section states “The intent of operability determinations is for licensed operators to make timely determinations concerning whether SSCs can perform their specified function(s) upon discovery of degraded or nonconforming conditions.” This sentence may not recognize that the focus of operability is the capability to ensure that specified safety functions (i.e., the functions required for operability) can be performed. The inability to perform a non-safety-related specified function not included in the plant TS should not require an operability determination. Rather, this type of condition should be addressed by the licensee’s problem identification and resolution program in a manner consistent with the safety significance.

Resolution: Revised “safety function” to “specified safety function”]

3. Key terms and definitions convey the document as a requirement

During the public workshop on August 25, 2004, NRC often repeated that the guidance document represents inspector guidance and licensees are not required to follow it. However, the natural tendency of licensees will be to use the document extensively to inform their own procedures and practices. It is very important to have further dialogue on this and future revisions of the document to minimize potential misunderstandings of key terms and definitions.

Partial Resolution: Re-titled the document: “ASSESSING OPERABILITY DETERMINATIONS AND RESOLUTION OF DEGRADED AND NON-CONFORMING CONDITIONS”

✓.The 1st sentence of the 1st paragraph states, “The Code of Federal Regulations and a plant’s operating license, including its technical specifications, provide requirements for safety related structures, systems, and components (SSCs) to ensure that plant operation does not pose an undue risk to public health and safety.” We recommend the term “safety related” be deleted. The Operating License, TS, and 10 CFR apply to more than safety-related SSCs.

Resolution: Incorporated.

× 5. The 3rd paragraph states that licensed operators should make operability determinations. We note that “making an operability determination” is not the same as “preparing the basis for an operability determination.” Many individuals on the plant staff, such as the Shift Technical Advisor (STA) or staff in departments other than Operations (e.g., Engineering, Radiological Control, Licensing, etc.), often prepare the basis for an operability determination to address whether SSCs can perform specified safety functions. A licensed operator then uses the preparer’s documentation to make the final declaration of “operable” or “inoperable,” i.e., whether a TS LCO is or is not satisfied.

Resolution: No change. The stated paragraph does not infer that the operator(s) act alone to make TS operability determinations.

6. We recommend putting the 5th paragraph first to highlight the primary purpose of the guidance document, **which is to provide guidance to NRC inspectors** (emphasis added to underscore NEI's concern that the document could be read by NRC inspectors, NRC reviewers, and licensee personnel as representing more than guidance).

Resolution: Incorporated. Section 1.0, Intent contains INTRODUCTION discussion in which the 5th paragraph is first followed by the paragraph. The remaining paragraphs make up the BACKGROUND discussion of Section 1.0.

✓(Duke -#1)

This section should note that the guidance is not intended to be used as a means to justify actions which create degrading or nonconforming conditions. For example, it is inappropriate to purposefully breach a safety related ventilation controlled boundary and justify that breach using compensatory actions unless it can be verified that the ventilation system will continue to perform its specified safety function(s) and that all applicable Technical Specification requirements will continue to be met (Reference TIA 98008 and related correspondence).

This section states "The intent of operability determinations is for licensed operators to make timely determinations concerning whether SSCs can perform their specified function(s) upon discovery of degraded or nonconforming conditions." **This sentence fails to recognize that the focus of operability is foremost on the capability to ensure that specified safety functions can be performed. The inability to perform a non-safety related specified function not included in the plant Technical Specifications should not require an operability determination. Rather, this type of condition should be addressed by the licensee's corrective action program in a manner consistent with the safety significance.**
Resolution: Agree. The sentence now specifies, "...whether SSCs can perform their specified safety function...."

2.0 SCOPE/APPLICABILITY (revised)

(NEI)

✓1. With respect to Item (i), the definition of safety related SSCs is not in 10CFR50.49(b)(1). This definition only applies to equipment qualification of electrical equipment. **The correct reference is 10CFR50.2.** The description of design basis events is from 10CFR50.49, but this definition was developed for equipment qualification, and it is not clear if it is applicable to other uses.

Resolution: Comment incorporated.

X2. Item (i) refers to “potential offsite exposures comparable to the 10 CFR Part 100 guidelines.” We recommend reviewing this statement in light of changes to 10CFR100 made in 1996. Although the statement in Item (i) remains applicable for most operating plants using Part 100 Subpart A, **new sites and designs must meet Subpart B.** For plants using Subpart B, the offsite exposure limits are in 10CFR50.34 not Part 100, and the limits in Subpart B are requirements, not guidelines.

Resolution: Probably agree. Need specific recommendations.

X3. The purpose and regulatory basis for Item (iii) should be described (i.e., is it a regulation, a Regulatory Guide, or something else).

Resolution: No change based on existing Part 9900 guidance.

✓4. **We recommend revising Item (iii)** to read “analyses and evaluations ... submitted to support *approved* license amendment requests, *approved* exemption requests, or *approved* relief requests ...”

Resolution: Comment incorporated

✓5. **The scope of one set of SSCs is defined by Section 2.0. Another set is defined by Section 3.4, Functionality.** Section 3.4 states “The term functionality is used when referring to SSCs not explicitly included in plant TS. It refers to the ability of these SSCs to perform their designed functions. The designed function is not limited to either the function described in the UFSAR or 10CFR50.2. Although this guidance is worded to reflect assessment of SSCs in plant TS, the principles in this guidance for timely assessment of whether SSCs can perform their specified functions are also applicable to the SSCs that are not in plant TS. This assessment and the resolution of degraded or nonconforming conditions are part of an effective licensee problem identification and corrective action program.”

Resolution: Agree, comment incorporated by referencing Section 3.4 in the 1st paragraph.

✓(Duke-#2)

Operability and corrective action are closely related concepts. However, they should be treated separately to ensure that the operability determination is focused on safety and is not delayed by decisions or actions necessary to plan or implement corrective action. Section 2.0 merges these two concepts together. This complicates the guidance with respect to operability and abates its ability to promote reasonable and consistent application. **Section 2.0 should be rewritten to clearly state which SSCs are within the scope of operability.**

Resolution: Somewhat agree, the SSCs are those required to be operable (i.e., TS) and those required to be functional (see Section 3.4).

XFor example, the list of SSCs in Section 2.0 is appropriate when viewed from a corrective action standpoint because 10CFR50 Appendix B requires corrective action whenever a degraded or nonconforming condition is identified. **However, the list is too broad when viewed from an operability determination standpoint (e.g., not all SSCs subject to 10 CFR Part 50 Appendix B and not all SSCs that fall within the scope of the maintenance rule have safety functions).** This is because the focus of operability is foremost on the capability to ensure that specified safety functions can be performed as required by the design and licensing basis and within the range of physical conditions for its safety mission and the required initiation time and duration. Non-safety functions should not fall within the scope of operability unless they are subject to the Technical Specifications explicitly or implicitly through the definition of operability or site manuals that contain relocated Technical Specifications (e.g., Technical Requirements Manual, Selected Licensee Commitments Manual).

Resolution: Probably agree, but need to discuss.

XAnother example that accentuates the need to clearly define which SSCs are within the scope of operability involves item (viii), “Any SSCs within the scope of the Maintenance Rule (10 CFR 50.65). **It is not clear if the scope is intended to be the 10 CFR 50.65(a)(4) scope or the section 10 CFR 50.65(b) scope.** The 10 CFR 50.65(a)(4) scope includes those SSCs in the scope of the plant’s level one PSA and those SSCs that have been determined to be high safety significant. The 10 CFR 50.65(b) scope includes all maintenance rule SSCs, including those SSCs that “could cause a reactor trip or safety system actuation.” If the NRC expects an operability determination every time an SSC within the scope of 10 CFR 50.65(b) is degraded and/or nonconforming, then this would unnecessarily shift the focus of licensed operators from the safety of the plant to matters that could be handled without operator involvement in accordance with the plant corrective action program. This deviates from the intent of the guidance as stated in Section 1.0.

Resolution: Need clarification, hold for discussion.

✓(Constellation Energy)

Section 2.0 - items (i), (ii), and (iii) – 10 CFR 50.49 is listed as one of the conditions of item (iii). In the context of (iii), among the structure, system, and components (SSCs) applicable to (iii) are those that support environmental qualification under 10 CFR 50.49. These same SSCs are covered under items (i) and (ii) in connection with 10 CFR 50.49. What is the difference between items (i)/(ii) and (iii) as they relate to 50.49 SSCs? **It is recommended that the reference to 10 CFR 50.49, in item (iii), be deleted if a quantifiable distinction between 50.49 SSCs, as they relate to items (i)/(ii) and item (iii), cannot be determined/provided.**

Resolution: Agree, see NEI comment #1 above.

(NUGEQ)

✓We recommend that this section use a more general definition of “safety-related structures, systems, and components” (“SSCs”) to identify the scope of the guidance. Paragraph (i) of Section 2 refers to 10 C.F.R. § 50.49(b)(1) for defining “safety-related SSCs.” This definition has been carried forward from the prior operability guidance inspection manual and is not consistent with the current definition in Section 50.49. Previously, Section 50.49, which sets forth requirements specific to certain electrical equipment, was the only Part 50 regulation that defined “safety-related SSCs.” In the intervening period since the initial operability guidance was issued, the NRC issued a direct final rule to make consistent the various regulations that

defined “safety-related SSCs” and to include a definition in Section 50.2.¹ Accordingly, the definition in Section 50.49 is now consistent with the definition in (1) 10 C.F.R. Part 100, Appendix A; (2) 10 C.F.R. § 50.2; and (3) 10 C.F.R. § 50.65.² The proposed inspection manual reference should be clarified to reflect that the definition of “safety-related SSCs” is included in these other regulations and is broader than the Section 50.49 scope of electrical equipment.

Suggested text changes for Section 2.0:

NUGEQ suggests that Section 2.0, paragraphs (i) and (ii), be modified as follows:

2.0 SCOPE/APPLICABILITY

Licensees that hold an operating license, including those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel, and all holders of operating licenses for nonpower reactors, including those whose licenses no longer authorize operation, should have a process to make determinations of operability and functionality when degraded or nonconforming conditions affecting its SSCs are identified.

This guidance is applicable to any of the following SSCs, which includes SSCs in plant TS and support SSCs (~~specifically, the~~ those that perform related functions that support the SSCs in plant TS). In addition, as part of an effective program for problem identification and corrective action, licensees should ~~also~~ assess any degraded or nonconforming conditions to determine the functionality of SSCs that are not in plant TS, consistent with the safety significance of the SSC.

*(i) Safety-related structures, systems and components: * those SSCs that are relied upon to remain functional during and following design basis events to assure:*

(1) The integrity of the reactor coolant pressure boundary

(2) The capability to shut down the reactor and maintain it in a safe shutdown condition; or

(3) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in § 50.34(a)(1) or § 100.11 of Title 10, Chapter I, as applicable.

[Footnote] See 10 C.F.R. § 50.2, 10 C.F.R. § 50.49, 10 C.F.R. § 50.65, and 10 C.F.R. Part 100, Appendix A.*

(ii) All SSCs whose failure could prevent satisfactory accomplishment of any of the required functions identified in (i), ~~(A) through (G)~~ (1) through (3), above.

Resolution: Agree to add regulatory citations.

¹ Final Rule and Proposed Rule: Definition of Safety-Related Structures, Systems, and Components; Technical Amendments, 62 Fed. Reg. 47,268 (Sept. 8, 1997).

² We note, however, that only 10 C.F.R. § 50.49 includes a definition of the term “design basis events.” It is not clear that this definition applies outside the context of Section 50.49.

3.0 DEFINITIONS

(NEI)

1. Use and relationship of key terms should be understood

The definitions in the guidance document are very important. To avoid misinterpretation, each key term should have a documented connection with a regulation, and the definition should be cited directly from the source document. Any key term that is used only for this guidance document must be clearly identified.

Resolution: Need to discuss details.

2. Use and relationship of key terms should be understood

The following terms are used in the draft Inspection Manual chapter:

1. Specified Safety Function
2. Safety Function
3. Specified Function
4. Designed Function
5. Support Function
6. Functional Capability

It is recommended that the number of “function” terms be limited and that the relationship among remaining terms be clearly identified in the document.

Resolution: Need specific recommendations. Limiting terms should not be arbitrary, it should be based on usage that is necessary to communicate the guidance.

Section 3.1 - Current Licensing Basis

✓(Duke -#3)

The **definition of current licensing basis comes from 10CFR54 which concerns license renewal. The NRC should clarify that this definition is also applicable to plants that have not renewed their plant operating license (Reference SECY-92-314 and related correspondence).**

Resolution: see NEI comment that follows.

(NEI)

10CFR54.3 for license renewal. **Is it appropriate to apply the definition from Part 54 to this technical guidance?** The guidance document applies to all licensees, but not all licensees have completed license renewal.

Resolution: HOLD - Discuss with IROB-A and OGC

3.2 Design Basis

✓(NEI)

We recommend the **1st sentence be reworded to say “Design Basis information, defined by 10CFR50.2, as documented in the most recent UFSAR.”** This sentence needs to recognize that each plant's 50.2 Design Basis information is reflected in its UFSAR and that this information may or may not conform to NEI 97-04 and Regulatory Guide 1.186. The current wording appears to differentiate between 50.2 design bases information and information in a licensee's UFSAR. We want to preclude situations where NRC concludes that a licensee's

design basis information does not satisfy 10CFR50.2 simply because it does not satisfy the NEI guideline or the Regulatory Guide.

Resolution: Agree, change made as proposed.

3.3 Operability

(NEI)

✓-1. We recommend **combining Section 3.3 with Section 3.7**. Section 3.7 affects how Section 3.3 is used, but the two sections are several pages apart.

Resolution: Somewhat agree, Section 3.7 becomes Section 3.4 and the remaining Sections are renumbered.

✓**2**. We **recommend addressing “mission time” in a stand-alone definition**, not part of the definition of operability. The concept of mission time applies to more than just operability.

Resolution: Agree. Add Mission Time to definitions section. The operability guidance defines mission time in the 2nd paragraph as: “For the purposes of operability determinations, the mission time is the duration of SSC operation, following an accident, that the UFSAR accident analysis credits an SSC in performing its specified safety function.”

X3. In addition, the mission time discussed in this section should relate to the mission time discussed in Appendix C.7 (EQ). Timing is also an important factor in Section 6.2. EQ-based mission times often differ from explicit accident sequence mission times. This disconnect is often the source of debate during operability determinations.

Resolution: Seems like accident mission times should govern vice EQ.

✓4. The 2nd paragraph states “In addition, the SSCs technical specification operability requirement requires the SSC to meet all its surveillance requirements, which are related to its underlying safety mission for accident mitigation purposes. An SSC that does not meet a surveillance requirement shall be declared inoperable.” **We note that not all Surveillances are required at all times.**

Resolution: Agree, revised the sentence to reference the STS, Rev. 3 SR 3.0.1 requirements

✓5. The last sentence states “For the purposes of operability determinations, the mission time is the duration of SSC operation, following an accident, that the UFSAR accident analysis credits an SSC in performing its safety function.” **To be consistent with the definition of operability, this should state “in performing its specified safety function.”**

Resolution: Agree, the sentence is revised accordingly.

~~3.4~~**3.5** Functionality

(NEI)

1. With respect to taking corrective actions for SSCs found to be degraded or non-conforming, the document provides much needed clarification to licensees and inspectors. It properly describes TS SSCs as being subject to OPERABILITY determinations and non-TS SSCs being subject to functionality considerations. **We recommend further dialogue** on this important topic, to maximize the benefits of the new wording.

Resolution: Agree to further dialogue.

2. Definition of Functionality not limited to the safety function of an SSC.

The overall definition is too broad. It states that functionality applies to any non-TS SSC and to any function that the SSC performs, whether or not the function is related to plant safety. If the term “functionality” is to be used, additional discussion is needed to elaborate on the necessary safety functions performed by non-TS systems.

Resolution: Partially agree. The term functionality (absent some other term) is a cornerstone to understanding operability determinations. However, the NRC staff is open to refining the guidance contained in Section 3.4(old). Discuss recommended wording at public meeting.

3. Functionality: clarify wrt TS supported systems, corrective action programs and licensee controlled documents

We recommend the document be reorganized to preclude mixing the discussion of operability with the discussion of functionality. In particular, the discussions of functionality need to be clarified. For example, the document is not clear regarding (1) the relationship between “functionality of support systems” compared to “functionality of TS supported systems,” (2) the use of the corrective action program to address functionality issues, and (3) whether systems in the Technical Requirements Manual (or equivalent document) must have “functionality.” The introduction of the term “functionality” is a substantial regulatory change that could significantly affect licensee programs.

Resolution: Agree to the larger issue that the definition may need to be clarified but don't need to rewrite the document. Do not agree to separate functionality from operability.

4. This section introduces the term “designated functions” for SSCs not explicitly included in plant TS. **What is the difference between “designated functions” and “specified functions?”** Can designated functions be safety- and non-safety related? Also, there is no guidance on the timeliness of “functionality determinations” versus “operability determinations.”

Resolution: Agree, these terms/concepts need to be clarified. Propose they be discussed at the next meeting.

5. **We recommend removing the sentence** “The designed function is not limited to either the function described in the UFSAR or 10CFR50.2” on page 4 of the guidance document. The statement is too broad as written. Many plant components have design functions not related to supporting a safety function. They should not be subject to this guidance document.

Resolution: Concept in SSC's is within Scope, but guidance discusses Functions/Operability of the SSCs.

6. Functionality Section: implies non-TS SSCs are within ODP.

This section can be read to imply that non-TS SSCs be handled by the operability determination process, not the corrective action process, whether they are functional or not. We do not believe this is the intent of the section and recommend additional wording to clarify the point.

Resolution: Agree with comment. Discuss recommended wording at public meeting.

X(Duke -#4)

This section introduces the term “designated functions” for SSCs not explicitly included in plant TS. What is the difference between “designated functions” and “specified functions?” Can designated functions be safety- and non-safety related? By introducing this new term, the NRC is creating confusion rather than clarifying the guidance. Furthermore, there is no specific guidance that addresses the timeliness of “functionality determinations” versus “operability

determinations.”

Resolution: See item #4 above.

3-5 3.6 Specified Safety Function(s) and Function(s)

(NEI)

1. We cannot determine the meaning of the 1st sentence of the 2nd paragraph and believe it should be deleted.

2. 3rd para. - perform as designed, tested and maintained.... not always the correct specified function criteria

The 1st sentence of the 3rd paragraph should be revised. It states “An SSC meets its specified function when it can perform as designed, tested, and maintained.” It is not completely correct to say that an SSC meets its specified function when it performs as designed, because systems are often over-designed with excess margin between design capabilities and those capabilities necessary to perform a required function. For example a pump may be designed to provide a flowrate of 1000 gpm, but be relied upon for a flowrate of only 500 gpm. If the pump can provide 700 gpm, it can still perform its specified function even though it does not meet the design.

Resolution: Somewhat agree. So what is better wording iaw design basis? Discuss recommended wording at public meeting.

- the statement as written is accurate and changing this concept is tenuous. There is always design margin and sometimes excess margin. In the example if a 1000gpm pump is used to meet a 500gpm requirement with 200gpm of margin (i.e. 700gpm) and the pump is performing less than 700gpm but greater than 500 gpm, the pump “may” be operable but degraded. This statement is designed in the sense of “plant design” and not manufacturers design. Further the margin may account for degradation in mission time etc. without knowing the basis of the excess inspection is required.

- Maybe just make this statement in the guidance. Designed with margin for the CLB.

3. 3rd para. - what is better guidance for when degraded reliability should result in an Operability Determination?

The 2nd sentence of the 3rd paragraph states “When SSC capability or reliability is degraded to a point where there is no longer reasonable assurance it can perform its specified functions, the SSC should be judged inoperable or not functional, even if at this instantaneous point in time the system could provide the specified function.” This is another example of the guidance document mixing operability with functionality. Equipment reliability is monitored by the Maintenance Rule and corrective actions are specified when equipment is unreliable. It is inconsistent with the definition of operability to say that a system capable of performing its function is inoperable due to degraded reliability. While there are cases where degraded reliability could lead to an operability determination, and potentially a declaration of “inoperable,” we strongly disagree with the generalized, subjective wording in the draft guidance.

Resolution: Somewhat agree. These are the same words as the previous guidance. Reliability is also monitored by Maintenance Rule, but must also consider operability (not mutually exclusive). So what is better guidance for when degraded reliability should result in an Operability Determination? Discuss recommended wording at public meeting.

- the wording is accurate, The specified safety function is a subset of the specified function. If a

TS SSC has a degraded or inoperable condition and it impacts the SSCs functionality it may be non-functional or it may be inoperable if the function impacted is the safety function. This nuance is necessary and part of the fundamental understanding of the process.

- Don't agree with NEI position: It is inconsistent with the definition of operability to say that a system capable of performing its function is inoperable due to degraded reliability.

4. Based on the previous two comments, the 3rd paragraph of Section 3.5 should be deleted.

5. Consistent Use of terms ...safety function, etc. - General Comments

The document should use terms consistently and avoid using them interchangeably. Section 3.5 definitions make it clear that some specified functions are not specified safety functions, yet the document still requires that an SSC that cannot perform its specified functions be declared inoperable.

If a function is a specified safety function, the inability to perform it means the SSC is degraded. For specified functions that are not also specified safety functions, there would have to be a regulatory requirement for the function before operability could be affected. We recommend limiting terminology to "specified safety function" (as used in the definition of operability) and to make it clear that references to functions throughout the document only refer to the specified safety functions. We recommend further discussion in followup public meetings to establish consistency throughout the guidance document.

Resolution: Discuss recommended wording at public meeting.

Disagree, the presumption is that the document is only for TS operability and not for functionality, there is an intent to have the differences noted and evaluated by the inspector. Specified function has three independent and totally unique subsets; specified non-safety functions, specified safety functions, and specified safety functions. For example: a safety related service water system has the specified functions of: cooling safety injection water to the reactor after an accident (specified safety function), putting the ultimate heat sink into the reactor (safety function), and spray the traveling screens (non-safety function).

✓(Constellation Energy)

The 10 CFR 50.59 guidance document, Nuclear Energy Institute (NEI) 96-07, Revision 1, defines a similar term to specified safety function, i.e., design function. **The relationship of this 50.59 term design function, to specified safety function should be developed in this document to provide consistency and clarity among Nuclear Regulatory Commission (NRC) endorsed documents and NRC documents.**

TB: Resolution: Agree. We will look at that.

3-63.7 Support Systems and Operability

(NEI)

1. There are examples of docketed correspondence in which NRC discusses the relationship between support systems and supported system operability. The NRC staff should search the ADAMS database for precedent on this subject and incorporate it in the guidance document.

Resolution: Why? Is there a problem? If so, what is it?

✓2. **The word "only" should be deleted from the 1st sentence of the 1st paragraph.** As discussed later, compensatory actions and manual actions can be used to justify system

operability when not all necessary support systems are capable of performing their related support functions. **Resolution: Agree, the sentence is modified.**

X3. This section could be improved by integrating STS LCO 3.0.6. The last two sentences of the 1st paragraph should be revised as shown below so that the discussion is applicable to both STS and non-STS plants:

When a support system that is not explicitly addressed in TS is determined to be incapable of performing its necessary support function(s), all specified systems that require the support system to function in order to be operable are ~~must immediately be declared inoperable and the TS LCOs for those systems must immediately be entered.~~ The licensee must take the appropriate remedial measures specified in ~~by the supported system TS LCO required actions to satisfy the requirements of 10CFR50.36.~~

Resolution: Disagree. LCO 3.0.6 is quoted for the ISTS plants, which is a clarification of the first paragraph.

- Seems O.K. to me.

3.7.3.4 Variations of Operability Definition in Plant-Specific TS

(NEI)

X1. Section 3.7 states “Word differences that exist are not viewed by the NRC to imply any significant overall difference in application of the plant specific TS.” We recommend this statement be deleted. There are technical differences between the STS definition of operability and the non-STS definitions. The section is correct in stating, “In all cases, a licensee’s plant-specific definition is governing.” **Resolution: Disagree.** This guidance to resident inspectors is consistent with precedence set in interpreting plant specific TS.

- We are also establishing typical guidance not encompassing everyone.

2. See comments on Section 3.3.

4.0 IDENTIFICATION OF DEGRADED OR NONCONFORMING CONDITIONS

4.1 Review Activities

(Duke -#5)

✓-This section states "Performance of the surveillance requirement is usually considered to be sufficient to demonstrate operability, provided that the system continues to conform to all appropriate criteria in the CLB." Clearly, an SSC does not need to conform to all criteria in the CLB to be operable. **Therefore, the NRC should clarify what the term "appropriate criteria in the CLB" means with respect to operability.** For example, the NRC should note that failure to conform to those CLB criteria not needed to demonstrate operability should be addressed by the licensee's corrective action program in a timely manner consistent with the safety significance.

Resolution: Disagree, but revised the guidance to clarify that "all appropriate criteria in the CLB" means criteria that is "necessary and sufficient to establish operability."

✓-This section also states

*"When any processes indicate a potential degraded or nonconforming condition, the plant must assess the operability of any affected SSCs." **This statement is incorrect for SSCs that do not fall within the scope of operability.** For the example, it is not necessary to perform an operability determination for non-safety non-risk significant SSCs that do not comply with all aspects of the CLB. If licensees were required to enter the operability process for such cases, it would unnecessarily cause licensed operators to shift their immediate and primary attention from the safety of the plant to matters that could be handled without operator involvement in accordance with the plant's corrective action program. **This deviates from the intent of the guidance as stated in Section 1.0.***

Resolution: Disagree, that the statement deviates from the guidance in Section 1.0. However, the sentence is clarified by referring to "TS required SSC."

(NEI)

✓1. The 1st paragraph states: "The process of reviewing the performance of SSCs and ensuring their operability is continuous." Since the guidance applies to both TS SSCs and non-TS SSCs, it is **recommended that the sentence read "The process of reviewing the performance of SSCs and ensuring their operability or functionality is continuous."**

Resolution: Agree, the sentence is revised as noted in the comment.

x2. A subsequent paragraph states that performance of the surveillance requirement is usually considered to be sufficient to demonstrate operability.

The TS presume that SSCs are OPERABLE (or continues to be OPERABLE) once declared OPERABLE absent indications or information to the contrary. The TS also do not require surveillance requirements to be conducted on inoperable SSCs. Section 5.7 of the draft guidance discusses the presumption of operability. **It is recommended that the guidance document reflect that surveillance requirements do not verify or demonstrate operability; they confirm operability.** It is recommended that the word "demonstrate" in Section 4.1 be changed to "confirm."

This same comment applies to the 4th bullet in Section 5.5 in which the word “verify” should be changed to “confirm” and the word “determined” should be changed to “confirmed.” Also, in the 3rd paragraph in Section A.2, the word “verify” should be replaced with the word “confirm.”

Resolution: Disagree. The STS Bases for specify that SRs verify operability: “SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits (emphasis added) ”

X3. 3RD para. - operability determinations for processes identifying a DNC only affect SSCs within the scope of operability

This section also states “When any processes indicate a potential degraded or nonconforming condition, the plant must assess the operability of any affected SSCs.” This statement is not correct for SSCs that do not fall within the scope of operability. For example, it is not necessary to perform an operability determination for non-safety, non-risk significant SSCs that do not comply with all aspects of the CLB. If licensees were required to enter the operability process for such cases, it would unnecessarily cause licensed operators to shift their immediate and primary attention from the safety of the plant to matters that could be handled without operator involvement in accordance with the plant’s corrective action program. To do so would not be consistent with the intent of the guidance as stated in Section 1.0.

Resolution: Disagree. But clarified the sentence with “TS required”.... the plant must assess the operability of any affected TS required SSCs.

- I also Disagree and would add that the concept that functionality will be reviewed, and a discussion relative to the “operability/functionality” terminology is presented at the beginning of the document.

✓4. The example given at the very end of this section implies that an operability assessment is required for a satisfactory surveillance that shows a “degrading trend.” Many things are factored into the trending of operating experience, and if a trend is in the non-conservative direction it would likely be classified as a degrading trend. However, a threshold criterion or some additional clarification is needed. Perhaps the example could add “...that indicates that the acceptance criteria could be exceeded prior to the next required surveillance performance.”

Resolution: Agree, the sentence is revised as noted in the comment.

4.2 Degraded Condition

(Duke-#6)

XAccording to this section, a degraded condition is one in which “quality” has been reduced. **If the NRC continues to use the term “quality” when describing a degraded condition, it should be defined.** Sufficient detail should be provided to help licensees determine when an operability determination is required. For example, a loss of required quality could be defined as a loss of margin to the extent that required or necessary conservatism has been removed. **SSCs within the scope of operability are designed and operated to include design margins and engineering margins of safety to ensure, among other things, that some loss of quality does not mean immediate failure.** The CLB includes commitments to specific codes and standards, design criteria, and some regulations that also dictate margins. In many cases, conservatism was added so that a partial loss of quality does not affect commitments to the margins. **The loss of conservatism not taken credit for in the safety analyses and**

not required to satisfy CLB requirements does not require a system to be declared inoperable. All other losses of quality or margins (i.e., losses of required quality) are subject to an operability determination and corrective action.

Resolution: Disagree. The guidance to inspectors should not try to specify the extent to which reduced quality results in inoperable SSCs.

- Somewhat agrees.... agrees with the argument point: "SSCs within the scope of operability are designed and operated to include design margins and engineering margins of safety to ensure, among other things, that some loss of quality does not mean immediate failure."

(NEI)

✓We recommend that **the definition for "degraded condition" be modified to eliminate the use of conditional language** and achieve consistency with the important paragraph that follows the table in Section 4.4. **Resolution: Agree**

(Constellation Energy)

✓Sections 4.2/4.3, Degraded Condition/Nonconforming Condition)

The conditional language (i.e., "**potentially affecting operability or functionality**") **should be removed.** This phrase is not relevant in determining if an item is degraded or nonconforming. This Regulatory Issue Summary (RIS) should not create new criteria (i.e., does the degraded/nonconforming condition affect operability) to determine if the condition itself is a degraded /nonconforming condition.

Resolution: Agree, the sentence is revised as noted in the comment.

XNonconformance is discussed, in 10 CFR Part 50, Appendix B, Criteria XV, as a failure to conform to requirements. There is no mention of challenging operability in Criteria XV discussion. Title 10 CFR Part 50, Appendix B, Criteria XVI identifies both degraded (i.e., failures, malfunctions, deficiencies, deviations, defective material and equipment) and nonconforming (i.e., failure to conform to requirements) conditions as needing to be identified and corrected as part of a corrective action program. There is no mention of challenging operability in Criteria XVI.

Resolution: Disagree, this matter is addressed in Section 7.0, Corrective Actions.

- The last sentence states: "There is no mention of challenging operability in Criteria XVI."

What is the comment?

XV. Nonconforming Materials, Parts, or Components

Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.

XVI. Corrective Action

Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management.

4.3 Nonconforming Condition

(NEI)

✓1. We recommend that conditional language (i.e., “**potentially affecting operability or functionality**”) **be removed**. This phrase is not relevant to determining whether an item is degraded or nonconforming.

Resolution: Agree, the sentence is revised as noted in the comment.

✓2. We recommend the 2nd bullet be revised to read “CLB requirements” instead of “UFSAR requirements.” The scope of the CLB is larger than the scope of the UFSAR description. This bullet, albeit an example, should reflect the broader scope of what can become a nonconforming item.

Resolution: Agree, the sentence is revised as noted in the comment.

✓3. The definition **should relate to the important paragraph that follows the table in Section 4.4**. The discussion of the application of this definition in situations where SSCs remain fully qualified should be as clear as possible. **Resolution: Agree, see the table in section 4.4.**

4. Explain the proposed changes....

Although it is not discussed, the nonconforming condition example related to operating experience properly notes that the nonconformance starts when the licensee determines that it has a design inadequacy, not necessarily when it receives industry information suggesting an inadequacy may exist. The operating experience program should take responsibility for expediting the analysis to determine whether the design inadequacy (nonconforming condition) actually exists.

What is the proposed change?

4.4 Fully Qualified

(NEI) Table illustrations and its usage are unclear

Please explain the purpose of the Table in Section 4.4. The connection to the regimes described in the paragraph immediately below the table is not immediately apparent. Specifically, the treatment within the regimes above and below Full Qualification should be explained. The definitions for Degraded Condition and Nonconforming Condition should be consistent within the table. If the exclusion of nonconforming conditions from the current table is intentional, then that logic should flow from the definitions in Sections 4.2 and 4.3. Likewise, the use of the defined terms “Specified Function”, “Specified Safety Function”, and “Functionality” should be more consistent. Operability of “Technical Specification SSCs” should only refer to the ability to perform a “Specified Safety Function,” not the broader term “Specified Function.”

Resolution: Explain “above” Full Qualification. The table provides an illustration.

-the table could be clarified, however the current changes made cause unnecessary restrictions and provide for misinterpretation (e.g. specified safety vs safety etc.)

(Duke-#7)

X Previous NRC guidance noted that the Technical Specification definition of operable and operability specifically applies to SSCs covered by Technical Specifications and to those systems that fall within that definition. Furthermore, previous guidance noted that those same definitions are generally applied generically to other SSCs within the scope of operability – including those outside the Technical Specifications. **It is not clear why the NRC would now take a different approach for SSCs not in Technical Specifications and suggest use of the term “functional” and related terms when assessing their ability to perform specified functions.** Again, this appears inconsistent with the NRC’s goal to simplify the guidance. Also, the guidance makes no distinction regarding the timeliness of “functionality

determinations” versus “operability determinations.”

Resolution: Disagree, the revised should simplify the guidance for qualified and non-qualified TS or non-TS SSC(s).

(Grime & Assoc)

An SSC is considered fully qualified when it conforms to all aspects of its CLB, including meeting all applicable codes and standards, design criteria, safety analyses assumptions and specifications, and licensing commitments. Operation with fully qualified SSCs ensures that safety margins are maximized. The table below illustrates the terminology used to describe the status of SSCs when degraded or nonconforming conditions are identified and evaluated. Operable refers to SSCs that are in TS and functional refers to those SSCs that are not in TS. For SSCs not in TS, the assessment of functionality and the resolution of degraded or nonconforming conditions are part of an effective licensee problem identification and corrective action program.

State of Qualification	SSCs in plant TS	SSCs not in TS
Fully Qualified	Operable	Functional
Condition exists, but only affects margin	Operable but degraded	Functional but degraded
Condition exists affecting specified safety function(s) , but SSC determined able to perform the function	Operable but degraded or nonconforming	Functional but degraded or nonconforming conforming
Condition exists affecting specified safety function(s) , but SSC determined not able to perform the function	Not Operable	Not Functional

The SSCs defined in Section 2 are designed and operated, as described in the CLB, to include design margins and engineering margins of safety to ensure, among other things, that some loss of quality does not mean immediate failure. The CLB includes commitments to specific codes and standards, design criteria, and some regulations that also dictate margins. Many licensees add conservatism so that a partial loss of quality does not affect their commitments to the margins.

The loss of conservatism not taken credit for in the safety analyses and not committed to by the licensee to satisfy licensing requirements does not require a system to be declared inoperable. **When non-credited conservatism losses are expected during normal plant operation, such losses are not considered degraded conditions. For example, a pump with declining capacity due to wear becomes degraded when its capacity decline could affect operability or functionality. A pump that fails to meet a capacity requirement must be considered degraded. A pump showing a declining trend that has the potential to reduce its capacity below the capacity requirements before the next surveillance should also be considered degraded. However, if the decline in capacity is consistent with the assumptions considered in testing and maintenance programs, the pump remains operable.**

Resolution: Agree, with clarifying non-credited conservatism; however, additional guidance was added to Section 4.1, Review Activities in response to NEI #4 that addresses losses to non-credited conservatisms.

5.0 OPERABILITY DETERMINATIONS

(NEI)

✓1. We recommend **rearranging the subsections in Section 5**. Reasonable expectations should be first; then scope, circumstances, and timing; then intermediate and prompt determination (including documentation); and finally presumption of operability.

Resolution: Incorporated.

2. We recommend the 2nd sentence of the 1st paragraph be deleted. Immediate threats to public health and safety are not factors in an operability determination and should be addressed in other guidance.

Resolution: Disagree, maybe comment deals with security??

X3. 2nd para - **Capable staff for operability det. includes Operators or other knowledgeable plant staff**
We believe the 2nd paragraph is overly prescriptive. We recommend deleting the 2nd and 3rd sentences so only the 1st sentence remains. Plant staff knowledgeable in the subject matter and possessing appropriate knowledge of plant operations are capable of making operability determinations for the facility.

Resolution: Disagree. This is our Agency position. It is new.

X4. **Add guidance - distinguish between delay time for DNC analysis and the operability determination**

During the public NRC workshop on August 24, 2004, the NRC staff acknowledged that some potential degraded/nonconforming conditions (DNCs) may require analysis to verify that they are actual DNCs, and that non-licensed personnel are permitted to conduct such verifications. In these circumstances a reasonable period of time is needed to verify the DNC before an operability determination can be made. This distinction should be made in the guidance document.

Resolution: Disagree. There is a sentence about using best available information. Otherwise, the plant is being operated without reasonable assurance of safety.

X (Duke -#8)

The focus of operability is foremost on the capability to ensure that specified safety functions can be performed as required by the design and licensing basis and within the range of physical conditions for its safety mission and the required initiation time and duration. Accordingly, this section appropriately states "Determinations of operability are appropriate whenever a review, TS surveillance, or other indication calls into question the SSC's ability to perform its specified safety function." However, in a subsequent paragraph, **the term "functionality determinations" is introduced. As stated previously, it is not clear why the NRC would introduce a new term for SSCs not in Technical Specifications.** Again, this appears inconsistent with the NRC's goal to simplify the guidance.

Resolution: Disagree, the document will be reviewed and revised throughout to ensure that the terms OPERABLE/OPERABILITY, inoperable, functional/functionality, and "not functional" are used consistently and in the proper context.

X (Constellation Energy)

The **operability/functionality determination guidance, provided in this document, should be limited to** only those in-scope (i.e., Section 2.0) SSCs where the results from the operability/functionality determination process is utilized in making decisions on the continued operation of the facility. For example, only SSCs explicitly subject to Technical Specifications [Section 2.0; item (vi)], SSCs required to support Technical Specification SSCs [Section 2.0; item (vii)], and 10 CFR 50.65(a)(4) SSCs [Section 2.0; item (viii)], should be subject to this guidance. All other in-scope SSCs should be subject to only the corrective action portion of

this guidance.

Resolution: Clarification of this comment is needed. The staff would not apply operability determination guidance to SSCs required to have functionality. As such, refer to Duke#8 (above) which suggests separating operability/functionality.

- Agree with the comment in principle.

X (Constellation Energy)

Nuclear Regulatory Commission **expectations for performing functionality determinations on in-scope SSCs, where the results of the determination process are not utilized in any follow-on regulatory decision making for operating the plant, should be eliminated.**

Resolution: - Disagree with comment. Purpose is to establish clear expectations, where warranted.

5.4 5.4 Timing of Operability Determinations

(NEI)

✓ 1 **Partial use of STS definition of CT**

In light of Section 5.3, footnote 2 of Section 5.1 could lead one to conclude incorrectly that, if time is taken to make a prompt operability determination and the SSC is determined to be inoperable, then the Completion Time begins when the degraded condition was originally identified. The Completion Time begins when a licensed operator determines a LCO is not met and the appropriate Condition is entered. Section 1.3 of the STS states, "It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO." Footnote 2 only contains part of the definition of Completion Time and does not include the important provision of "that requires entering an ACTIONS Condition." Footnote 2 should be revised to include the entire definition in STS Section 1.3.

Resolution: Incorporated comment.

X 2. The term "allowed outage time" is not defined at plants that have not adopted the STS. **We recommend ending the footnote after the parenthetical phrase "(e.g. ... not within limit.)"**

Resolution: Disagree. By citing the STS Section 1.3 guidance on Completion Time the RIS guidance on timing of operability determinations is sufficiently clear that custom TS plants can understand how it applies to their license basis.

5.2 5.5 Immediate Determination

(NEI)

X 1. Section 5.2 states "An immediate determination concluding that the SSC is operable must be predicated on the licensee's reasonable expectation that the SSC is operable, and that the prompt determination will support that expectation." Without further clarification, this could lead to subjective application for cases in which new or additional information shows that the SSC determined to be operable by the immediate determination was, in fact, inoperable. **Section 5.2 should be clarified consistent with Section 5.7, Presumption of Operability. Without information to the contrary, once a component or system is established to be operable it is reasonable to assume that the component or system will remain operable.**

Resolution: Disagree with comment. The staff does not believe a subjective application would confuse the guidance in Section 5.2 (old), Immediate Determination, with Section 5.7 (old), Presumption of Operability, because operability must be periodically confirmed per TS and other requirements so the "bold" text in the comment does not add value to the "immediate determination process."

x 2. We recommend deleting the word “potential” from the 1st sentence. Operability is an issue for identified degraded/nonconforming conditions, not potential degraded/nonconforming conditions.

Resolution: Disagree. If the condition is known to be degraded/nonconforming then the prompt determination process applies... “potential” clarifies the discussion that follows.

x3 2nd sentence - link immediate determination to a discovered condition that is immediately quantifiable

We recommend rewording the 2nd sentence to read “In cases where a ‘degraded’ condition is discovered, and the level of degradation is immediately quantifiable (e.g., loss of motive power, etc.), it is expected that the decision can be made immediately.” In other cases, such as the discovery of a nonconforming condition where the impact on operability is not as obvious, other departments such as Engineering or Licensing may provide input into the immediate determination.

Resolution: Disagree. If a degraded condition is identified the immediate determination is made.

✓ 4. We **recommend deleting the word “complete”** from the 2nd sentence. “Complete information” is undefined and, as discussed in Section 5.4, is not required at any point in the operability determination process.

Resolution: Incorporated as a result of comment 3, above.

✓ 5. We **recommend removing the last sentence**, because the licensee is already in the Section 5.3 (Prompt Determination) process.

Resolution: Incorporated.

✓ 6. We recommend either referencing Section 5.8 in Section 5.2, or incorporating Section 5.8 into Section 5.2.

Resolution: Incorporated.

7. The burden of performing a functionality determination for SSCs that are not explicitly or implicitly subject to the TS through the definition of operability should not be the same as the burden of performing an operability determination. The guidance document should be consistent with the objective of reducing unnecessary regulatory burden. **The draft documentation is not clear on the expectations for a functionality determination.**

Resolution:- Agree

x8 ODP - use different terms..... assess and evaluation

With respect to the operability determination process, the terms “immediate” and “prompt” have similar meanings. We recommend the following changes throughout the guidance document:

- (1) change “immediate determination” to “operability assessment.”
- (2) change “prompt determination” to “operability evaluation.”

This change would facilitate resolution of other comments. For example, non-licensed personnel could contribute to an operability evaluation, and a licensed operator could use the evaluation to make an operability assessment.

Resolution: Disagree. Doesn't convey a sense of urgency.

x (PGN-1)

Section 5.2. Immediate Determination. The NRC's expectation is that licensed operators make an

immediate determination of Structure, System, or Component (SSC) operability even though complete information may not be available. The immediate determination should be based on the best information available. Section 5.2 states that “An immediate determination concluding that the SSC is operable must be predicated on the licensee’s reasonable expectation that the SSC is operable, and that the prompt determination will support that expectation.” Without further clarification, this could lead to subjective inspector application for cases in which new or additional information ultimately shows that the SSC, determined to be operable by the immediate determination, was in fact inoperable. **Section 5.2 could be enhanced with clarifying language consistent with Section 5.7, Presumption of Operability. Specifically, without any information to the contrary, once a component or system is established as operable, it is reasonable to assume that the component or system should continue to remain operable.**

Resolution: - Disagree with comment. Immediate determination does not necessarily mean “established.”

X (Constellation Energy)

The start time for inoperability should be defined, since it was a point of confusion at the August 25, 2004 NRC workshop. Inoperability starts when the licensed operator concludes an SSC is inoperable, regardless of when the degraded or non-conforming condition was first identified.

Section 5.2, 1st sentence (also Section 4.1, next to last sentence and Section 1.0, 6th paragraph, 1st sentence) - **Delete the word potential/possible.**

Consistent with the intent of this RIS (see Section 1.0, 2nd paragraph) operability is to be considered for identified degraded/nonconforming conditions, **not for potentially or possibly degraded/nonconforming conditions.**

Resolution: Somewhat agree. Same as NEI #2, above. The need for discussing the “potential” degraded/nonconforming condition is consistent with Section 1.0, 2ND paragraph in that Section 1.0 refers to the discovery process in the language “upon discovery of degraded or nonconforming...” and Section 5.2 (old) addresses the “discovery process.”

- I think we should get rid of the word “potential.”

5.3 5.6 Prompt Determination

(NEI)

X1. The 1st sentence states “Subsequent to the immediate operability determination, a prompt operability determination should be made by licensed operators.” **Once an immediate determination is made there may be no need to perform a prompt determination.** For example, there would be no need to perform a prompt determination if the SSC is declared inoperable. **Furthermore, a prompt determination should not be required if an immediate determination is based on verifiable information that provides an adequate basis for an operability determination.** Once a component or system is established as operable, it is reasonable to assume that the component or system will remain operable. We recommend rewording the sentence to read, “**Subsequent to the immediate determination, a prompt determination may also be necessary. The need for a prompt determination is based on the confidence that the immediate determination supports the reasonable expectation that the SSC is operable. If further investigation is needed after the immediate determination, a prompt determination should be performed.**”

Resolution: Disagree - this is the point of contention I wrote a substantive e-mail on - a SSC is either operable or inoperable. If a degraded condition is identified the immediate determination is made.

- We may need better criteria since CTs have moved out over the years. While I might agree with you, I think this guidance carries over from previous versions. Please verify.

X 2. We **recommend rewording the 3rd sentence** to say “For SSCs associated with TS, the completion times in the TS are reasonable expectations for the completion times of an ‘operability evaluation.’ For SSCs not associated with TS, the timing for completing an ‘operability evaluation’ should be based on a reasonable expectation of operability/functionality and that the ‘operability evaluation,’ when completed, will support an ‘operability assessment’.

Resolution: Disagree. The intent of the guidance in the 3rd sentence is to set out expectations for completing a “prompt determination.” The staff disagrees that TS Completion Times provide a reasonable time frame for completing a prompt determination. TS already establish the lowest functional capability or performance levels of equipment required for safe operation of the facility. A more reasonable expectation for completing a prompt determination for a SSC known to not fully comply with regulations is more closely related to 50.36 requirements to shutdown when an LCO is not met. Thus, 24 hours (12 hours to Hot Standby + 12 hours to Hot Shutdown) is a reasonable time to complete a prompt determination of operability.

✓- 3. The 5th sentence states “The safety significance of the SSC may be used as part of a reasonable safety justification to extend the completion time. Please expand on the intent of the phrase “... as part of a reasonable safety justification ...” This sentence alludes to a licensee not only having to document a prompt operability determination but also the basis for the time allotted for its completion. **We recommend deletion of this sentence (see Comment 3 on Section 5.2 for alternative language on timing expectations.**

Resolution: Disagree. The staff reordered the discussion to emphasize that prompt determinations are to be made commensurate with the safety importance of the degraded/nonconforming finding.

X+ 4. Strict time requirements limit licensee’s ability to thoroughly address relevant issues and perform confirmatory analysis.

Strict time requirements on prompt operability determinations limit a licensee’s ability to thoroughly address relevant issues and perform confirmatory analysis. For example, assume a support system does not satisfy accident analysis input assumptions. Then assume that knowledgeable personnel determine within 24 hours that, even though the situation is unlikely to affect the results of the accident analysis, it would be advisable to re-analyze certain scenarios. Vendor support to perform and review a re-analysis normally takes two weeks or longer. Is this considered “analysis proceeding towards a final resolution?” Strict adherence to the draft guidance would lead a licensee to complete a prompt determination without completing this re-analysis.

Resolution: Revised guidance. 24 hours is the benchmark for most prompt determinations. The safety significance could mean the TS CTs is more appropriate or for the case where the TS CT is less than 24 hours, then 24 hours can be use.

- Strongly Disagree - an SSC is either operable or inoperable. If a degraded condition is identified the immediate determination is made.

- We may need better criteria since CTs have moved out over the years. While I might agree with you, I think this guidance carries over from previous versions. Please verify.

✓ 5. We recommend either referencing Section 5.8 in Section 5.2, or incorporating Section 5.8 into Section 5.2.

Resolution: Comment Incorporated.

✓- (Duke-#9)

This section states “Subsequent to the immediate operability determination, a prompt operability determination should be made by licensed operators.” **Once an “immediate determination” is made,**

there may be no need to perform a “prompt determination.” For example, there is no need to perform a “prompt determination” if the SSC is declared inoperable. Furthermore, a prompt determination should not be required if the “immediate determination” was based on existing information that was easily verifiable and that provided an adequate basis for the operability determination. Once a component or system is established as operable, it is reasonable to assume that the component or system should continue to remain operable, and the previously stated verifications should provide that assurance.

Resolution: Duplicate of NEI#1, above.

✓ (Constellation Energy)

Section 5.3 **alludes to the fact that every immediate determination must have a follow-on prompt determination.** In many cases, a prompt determination is not necessary. Sections 5.2 and 5.3 should allow for this condition. NOTE: The NRC, at the August 25, 2004 workshop, accepted the concept that the immediate determination may in some cases be the final determination.

Resolution: same as NEI#1, above.

5.4 5.1 Reasonable Expectation

(NEI)

X1. We recommend **revising the 1st sentence** of the 1st paragraph to state, **“When a licensee has cause to question the operability of an SSC, and the SSC is not immediately declared inoperable,** the determination process must be predicated on the licensee’s reasonable expectation that the SSC is operable ...” **Resolution: (TB) Disagree, words imply a time delay in making a decision is O.K., contrary to intent.**

X2. **Words seem to be missing from the 2nd sentence.** We believe it should state “In this case, reasonable expectation does not mean absolute assurance that the SSC is operable; however, the SSC should be more likely *to be operable* than not operable.”

Resolution: Disagree.

- modified to reflect workshop discussions and Kerri’s words. However, seems like this should be “preponderance of evidence.”

✓ (Constellation Energy)

Section 5.4, 1st sentence should be reworded to read, “When a licensee discovers a degraded or nonconforming condition, where operability of an SSC is questioned” This rewording reflects the fact that, within the context of this RIS, SSC operability is only questioned when a degraded/nonconforming condition is identified. The current wording alludes to other situations where operability may be called into question, even outside of the corrective action process.”

Resolution: Agree with comment.

✓ Section 5.4, 1st sentence should be reworded to read, “... the operability determination process (i.e., Section 5.0) must be predicated...” This rewording reflects the fact that the Section 5.4 discussion of reasonable expectation, applies to both the immediate and prompt determinations.”

Resolution: Comment Incorporated.

5.5 5.3 Circumstances Requiring Operability Determinations

(NEI)

✓1 - **reasonable assurance standard for operability is too broad**

The “circumstances requiring operability determinations” are very broad. This emphasizes the need to treat operability and corrective action separately. Without adequate separation, licensed operators will be asked to make operability determinations for issues that have little or no safety significance. This will distract from their safety focus.

Resolution: Agree. revised standard to “preponderance of evidence”

2. **An operability determination should not be necessary upon discovery of an error in a design calculation or upon discovery of other nonconforming conditions that do not affect the ability of a SSC to perform specified safety functions.** Such conditions should be addressed by the licensee’s corrective action program in a manner consistent with the safety significance. **We recommend adding language to clearly indicate when further review, per Section 5, is warranted.**

Resolution: Agree with comment, come up with a fix at the public meeting.

✓- 3. **We recommend simplifying this section by limiting the need for an operability determination to degraded/nonconforming conditions that affect operability or functionality.** The reference to such conditions adds “where performance or qualification is called into question,” which implies that not all situations that meet the degraded/nonconforming definition require an operability determination. **The recommended changes to the first two bullets of Section 5.5 are** (1) “Discovery of degraded conditions that affect operability or functionality of equipment where performance is called into question” and (2) “Discovery of nonconforming conditions that affect operability or functionality where the qualification of equipment (such as conformance to codes and standards) is called into question.”

Resolution: Comment partially Incorporated. Revised the bulleted items to only reference Degraded Conditions and Nonconforming Conditions. With regard to incorporating “functionality” the NRC staff does not see the need to broaden the discussion on Circumstances Requiring Operability Determinations to include non-TS SSCs.

✓- 4. The remaining bulleted items in this section can be cited as examples of degraded/nonconforming conditions. As noted previously, this section should also make it clear that only those degraded/nonconforming conditions that affect an SSC’s operability or functionality require a documented determination.

Resolution: See NEI#1, above.

✓+ 5. **We recommend that the last bullet be revised to either incorporate Administrative Letter 98-10 more clearly, or to separate it from other considerations.** We recommend the following wording: “Discovery of an improper or inadequate TS value or required action. Guidance related to nonconservative TS is provided in Administrative Letter 98-10, ‘Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety’.”

Resolution: Comment incorporated with the addition of the following text to clarify the purpose of AL 98-10: correction of facility TS when they are found to contain non-conservative values or specify incorrect actions

✓- (Duke-#10)

The scope of SSCs listed in Section 2.0 and the circumstances requiring operability determinations are very broad. This accentuates the need to treat operability and corrective action separately. Without adequate separation, licensed operators will be tasked with making operability determinations for issues that have little or no safety significance. Of course, this will distract from their safety focus.

It is unclear why an operability determination should be performed upon discovery of an error in a design calculation or upon discovery of other nonconforming conditions that do not potentially affect operability. Such conditions should be addressed by the licensee's corrective action program in a manner consistent with the safety significance.

Resolution: See NEI#1, above.

✓- (Grime & Assoc)

Discovery of degraded conditions of equipment where performance is called into question. Discovery of nonconforming conditions where the qualification of equipment (such as conformance to codes and standards) is called into question.

The other bulleted items in this section can be cited as examples of degraded and nonconforming conditions. As noted previously, **this section should also make it clear that not all degraded and nonconforming conditions require a documented operability determination.**

Resolution: Comment incorporated. See NEI #3, above.

✓- (Constellation Energy)

Section 5.5, 3rd, 4th, and 5th bullets - These are examples of degraded/nonconforming conditions for Bullets 1 and 2. They should be presented as such and not as conditions other than, or in addition to Bullets 1 and 2. In addition, we recommend revising this section to appropriately limit the need for an operability/functionality determination to only those situations where a degraded and nonconforming condition affects an SSC's operability or functionality. The recommended changes are:

Bullet 1- "Discovery of a degraded condition that affects operability or functionality."

Bullet 2 - "Discovery of a nonconforming condition that affects operability or functionality."

Resolution: Comment partially incorporated. (1) By limiting Operability Determinations to degraded/nonconforming conditions that affects operability (emphasis added) presumes the very condition exists that is being evaluated, i.e., if degraded/nonconforming condition is known to affect operability then the guidance of Section 5.5 has already been applied. (2) With regard to incorporating "functionality" the NRC staff does not see the need to broaden the discussion on Circumstances Requiring Operability Determinations to include non-TS SSCs.

5.6 5.2 Scope of Determinations/Comparison to Current Licensing Basis

(NEI)

✓ 1. We **recommend changing the end of the 1st sentence to read "consistent with its 10CFR50.2 design bases as described in the UFSAR."** This sentence needs to recognize that each plant's 10CFR50.2 Design Basis information is as reflected in it's UFSAR and that this information may or may not conform to NEI 97-04 or Regulatory Guide 1.186. The current wording appears to differentiate between 50.2 design bases information and UFSAR information.

Resolution: comment incorporated, but changed to CLB vice UFSAR.

✓ 2. **Not all of the bulleted items are needed for a prompt operability determination, but may be needed for reportability under 10 CFR 50.73 or under the problem identification and resolution process.** Stating that these items are necessary may delay the completion of the prompt operability determination. For example, in the 4th bullet, it is not necessary to “Determine the circumstances of the degraded on nonconforming condition, including the possible failure mechanism.” In the 5th bullet, is it not necessary to ask “why the requirement or commitment may not be met,” to determine operability. And in the 6th bullet, it is not necessary to “Determine by what means and when the nonconforming equipment was first discovered,” to determine operability. We recommend these bullets be deleted or modified.

Resolution: Agree.

✓ 3. In the 7th bullet, **it is not clear why** “Determine safest plant configuration including the effect of transitional action” **should be considered as part of an operability determination.**

Resolution: Agree, deleted 7th bullet.

x 4. 8th bullet – Although the term “compensatory measure” is not specifically used, we interpret this section as referring to compensatory measures. **We recommend consistently changing “any additional actions or measures” to “compensatory measures” throughout the guidance document.** Resolution: Somewhat agree, changed “actions or measures” to “actions or compensatory measures.”

x 5. The 8th bullet refers to Information Notice 91-78. **Shouldn’t the reference be IN 97-78?** Regardless, the applicable parts of IN 97-78 have been incorporated into Section C.5. Referencing IN 97-78 in Section 5.6 is unnecessary because much of it is no longer applicable. **It would be better to refer to Section C.5 for further details on compensatory measures associated with the use of manual actions.**

Resolution: IN reference is corrected to 97-78. Section C.5 does not replicate the IN topic. Section C.5 discusses the regulatory basis perspective for using manual action in place of automatic action whereas, IN 97-78 informs the industry that NRC review guidelines for assessing licensee analyses for crediting operator actions in place of automatic actions, including response times are based on ANSI-58.8 guidance.

x 6. With respect to the last bullet, many support systems are not included in TS; therefore they should be referred to as functional rather than operable. **To be consistent with the rest of the document, the last bullet should read “the operability or functionality of necessary support systems ...”**

Resolution: Disagree. The items in this part of Section 5.6 specifically address “operability determinations, thus functionality discussions are not appropriate.

✓- 7. **We recommend removing the following bulleted item on page 10: “An SSC's operability requirements extend to its necessary support systems regardless of whether the TS explicitly specify operability requirements for those support systems.”** This is true in a general sense, but that does not necessarily mean that when a support system that has a TS LCO associated with it becomes inoperable, the supported system has to be declared inoperable. In fact, STS LCO 3.0.6 states explicitly that it does not, as long as the safety functional determination process (SFDP) verifies that a loss of function is not involved.

Resolution: The bulleted item was revised to clarify that not all supported features are in TS.

x 8. The **bullet (2nd)** “Determine the safety function(s) performed by the equipment” is inconsistent with the broadening of scope beyond safety related elsewhere in the document. **It should state “Determine the specified safety function(s) ...”**

Resolution: Disagree, “specified safety function(s)” is more limiting than “safety function(s).”

X (Duke-#11)

Nuclear power plants operate under many requirements. Some of these requirements are administrative, some are self-imposed, and some are obligations and commitments. **The NRC should define the term “requirement” as they intend it to be used in the context of nonconforming conditions (Section 4.3) and the scope of operability determinations.** Resolution: The scope of requirements relevant to this section include performance requirements, functional requirements and operability requirements.

✓ (PGN-2)

Scope of Determinations/Comparison to Current Licensing Basis.

Bullet 7. It is not clear why “Determine safest plant configuration including the effect of transitional action” should be considered as part of Operability Determinations. **Greater clarity is necessary.**

Resolution: comment incorporated. (same as NEI#3), above.

(Constellation Energy)

At various places in this section reference is made applying only to the prompt determination process. The concepts and considerations of operability as discussed in Section 5.6 apply to both the immediate and prompt determination processes. The concepts and considerations are the same. The only difference would be in the level of documentation and review rigor. **Please reword this paragraph to reflect this consideration.**

Resolution: Agree, deleted “prompt” determination references.

5.7 5.7 Presumption of Operability

(NEI)

✓- **1** - **conflicting guidance with STS SR 3.0.3 for missed SRs.**

The example used in the 1st paragraph conflicts with STS SR 3.0.3. Also, we recommend the 3rd paragraph be deleted. Attempting to provide a summary about missed surveillances introduces conflicts for some plants. We recommend having a sentence in Section 5.7 that points to Section A.3 to address missed surveillances and to avoid references to time periods or TS requirements.

Resolution: Agree. Deleted 3rd paragraph. Need clarification to understand the comment re: conflicts with STS SR 3.0.3.

✓ The 1st paragraph of this section addresses presumption of operability and discusses potential means of coming to a reasonable conclusion of operability based on plant records. The paragraph contains the statement “If in such a case, the licensee has other methods to verify that the activity was in fact successfully accomplished (i.e., log entries) such a judgment might be appropriate.” **We recommend changing “i.e.” to “e.g.”** because log entries might not be the only documentation source available to a licensee to reasonably conclude operability. The use of “i.e.” implies that a log entry is the only means.

Resolution: Comment incorporated.

3 **clarify examples to better explain “presumption of operability.”**

The “presumption of operability” concept is an important concept and, in general, it is well understood. However, we believe the examples provided in this section tend to obscure rather than clarify the concept rather. This could be remedied by followup public meetings to finalize the language of the guidance document.

Resolution: Hold for discussion at the next pubic meeting.

✓ 4. The examples of when a presumption of operability is appropriate (items 1, 2, and 3) actually represent one example among many. Also, the 2nd paragraph refers to “the previously stated verifications ...,” but it is not clear if this is relating back to the previous paragraph or to something else. We recommend beginning the 3rd sentence as follows: “For example, the presumption of operability” Replace “... the previously stated verifications ...” with “the previous verifications of operability (e.g., surveillance or operability determinations) ...”

Resolution: Comment incorporated.

✓ 5. The last sentence implies that STS SR 3.0.4 contains a provision for missed surveillance under a risk evaluation. This would apply only to licensees that have adopted TSTF-358, as incorporated in Revision 3 of the STS (see Section A.3). **We recommend changing the beginning of the sentence to read, “For those licensees who have adopted STS SR 3.0.4 and traveler TSTF-358 (as incorporated in Revision 3 of STS) ...”** **Resolution: The paragraph containing the sentence is deleted, therefore, the comment is incorporated.**

✓ (Duke-#12)

The presumption of operability concept is an important concept and, in general, it is well understood. However, the examples provided in this section tend to obscure the concept rather than provide clarification.

Resolution: Agree, we need recommendations for replacement examples.

5-8 5.6 Documentation (NEI)

✓ 1. We **recommend deleting the word “Qualification” in the 3rd paragraph**. Qualification, in this document, implies “full qualification” or “fully qualified” (Section 4.4) and should be discussed as such, not within the context of documenting an operability determination. The term “Qualification” in the context of “use of engineering judgment” is ambiguous.

Resolution: Comment incorporated. Revised the sentence.

✓ 2. We **recommend deleting the term “safety significance” from the 3rd paragraph** because it has little relevance to the documented operability determination or use of engineering judgment discussed in this section. The concept of “safety significance” is discussed in Section 5.3, including the time within which prompt operability determinations need to be completed. The term does not relate to the documented operability determination itself.

Resolution: Comment incorporated. Revised the sentence.

3. Documenting operability determinations

This section (and Sections 5.5 and 5.6) should make it clear that not all operability determinations require documentation. A determination that an SSC is inoperable should not require operability-related documentation.

Resolution: Somewhat agree, but what about Control Room logging Operability calls? Discuss recommended wording at public meeting.

In some cases the immediate determination should be the final determination. When a component fails and is declared inoperable a documented operability determination should not be necessary.

Item #1 Resolution: Disagree, documentation guidance is appropriate for the stated concerns.

The guidance document should also make it clear that some operability determinations can be final based on the immediate determination.

Item #2 Resolution: Disagree, documentation guidance is appropriate. Comment is unrelated to documentation guidance.

Some licensees may document some operability determinations in condition/problem-identification reports and reserve separate documentation only for operability determinations requiring extensive engineering or licensing input. **The document should recognize** that operability determinations take many forms with varying content (see General Comment 5).

Item #3 Resolution: Disagree, no clear need identified that requires a fix.

X 4. Since a specific condition rather than the fact that operability is called into question determines the extent of an operability determination, a licensee should not rely on operability determinations to establish the extent of a condition. Every SSC failure, degradation, or nonconformance could raise an extent-of-condition concern, but not all situations will need an operability determination. **The corrective action program is the proper place to document extent-of-condition concerns.** Licensees have the option to resolve such concerns in one operability determination or to use a separate process for other SSCs that may need evaluation.

Resolution: - Disagree. This is an Operability problem for all affected SSCs.

X 5. We recommend that the details of this section be placed in Sections 5.2 and 5.3, as appropriate.

Resolution: Disagree.

(Grime & Assoc)

Needs to make it clear that not all operability determinations require documentation. Determinations that an SSC is inoperable should require no operability related documentation. In some cases the immediate determination should be the final determination.

Resolution: Same as NEI #3.

✓ (Constellation Energy)

In the 2nd paragraph, since the expectation here is that the prompt determination should be available for inspection, we assume this means that the immediate determination does not need to be available for inspection. **If this is not the intent, then the paragraph should be reworded to reflect this.**

Resolution: - Disagree, we want Operability Determinations to be available for inspection. Log entries may be used, they are one type of documentation.

6.0 OPERATIONS BASED ON OPERABILITY DETERMINATIONS

6.1 Not Operable

(NEI)

✓+ 1. The 1st sentence states “If any SSCs in TS have been determined to be not operable, then the appropriate Action Statements in the TS should be entered.” **However, there are situations in which LCO 3.0 does not require the Actions of an LCO to be entered when a SSC is inoperable.** A better statement would be “If any SSCs in TS have been determined to be not operable, then the actions specified in the TS should be followed.”

Resolution: Somewhat agree. Revised the sentence but replaced “should be” with “must be entered,” which is the language taken from STS Bases discussion for an LCO not met.

✓ 2. The 2nd sentence states, “[Similarly, if SSCs not in TS have been determined to be not functional, then the appropriate corrective actions should be taken.]” Does it need to be bracketed? More importantly, this statement is in a discussion on inoperable equipment. **We recommend that discussions of operability not be mixed with discussions of functionality.**

Resolution: Agree. Recommend Section 4.5, “Not Functional,” be created and the bracketed discussions as well as others related to this issue be moved into the NEW SECTION .

6.2 Operable But Degraded or Nonconforming

(NEI)

✓ 1. **The Index title is different from the title in the body of the document.** In the body, this section is entitled “Operable But Degraded or Nonconforming.” Also, the body of the document has a Section 6.2.1 that is not listed in the Index.

Resolution: Agree, the index has been corrected.

✓ **2 Separate functionality and operability discussions**

The 2nd sentence states, “[Similarly, SSCs not in TS that have been determined to be functional, although a degraded or nonconforming condition is present, are considered functional but degraded or nonconforming.]” Does it need to be bracketed? More importantly, this statement is in a discussion of inoperable equipment. We recommend that discussions of operability not be mixed with discussions of functionality.

Resolution: Agree. Recommend Section 4.5, “Not Functional,” be created and the bracketed discussions as well as others related to this issue be moved into the NEW SECTION .

✗ 3. This **section should contain a broader example of “operable but nonconforming.”** Only personnel familiar with equipment qualification would understand the relevance of the example in the 1st paragraph.

Resolution: Disagree but willing to consider alternatives when proposed.

✗ 4. We **recommend deleting the 1st sentence of the 2nd paragraph, including footnote 3.** The sentence states that if an SSC is operable, facility operation may continue. But Footnote 3 gives an exception to continued operation in the case of a facility that is experiencing significant performance problems that have led to issuance of a confirmatory action letter or order preventing that licensee from continuing to operate or resuming operation until approval is granted by the NRC. Footnote 3 involves a number of NRC management decisions that are beyond the scope of the guidance document.

Resolution: Revised footnote 3, did not delete 1st sentence. Footnote 3 was added to address an issue

involving a plant that was restarting and had a CAL in place.

✓ 5. The 2nd paragraph states, “SSCs that have been determined operable through an operability determination may be considered to remain operable as long as required surveillances continue to be met and information does not exist that would invalidate the reasonable expectation of operability established in the determination.” We recommend the sentence be revised to say “SSCs that have been determined to be operable through an operability determination may be considered to remain operable as long as required surveillances continue to be met and information does not exist that would invalidate the reasonable expectation of operability established in the determination.” **Surveillance requirements need not be cited as a special case within the context of an operability determination.**

Resolution: Agree, text deleted as proposed.

✓ 6. The 1st sentence of the 3rd paragraph states “The prompt operability determination for the degraded or nonconforming condition, as documented per Section 5.8, essentially constitutes a basis for continuing operations.” We believe that TS Actions constitute the basis for continuing operations. Even if an SSC were determined to be inoperable, it may be acceptable for operation to continue in accordance with TS Actions.

Resolution: - Agree with comment. The first sentence is changed to limit discussion to TS Actions.

7. The 4th paragraph discusses noncompliance with regulations when the noncompliance is not addressed by the operating license or TS. This discussion is not related to SSCs that are “operable but degraded.” Operability is a term reserved for components in TS. We recommend this paragraph be deleted or moved to a more appropriate section.

Resolution: - Agree, maybe move to Section 7.1??

x (Duke-#13)

According to this section, “The prompt operability determination for the degraded or nonconforming condition, as documented per Section 5.8, essentially constitutes a basis for continuing operations. This evaluation should continue to be reviewed in an ongoing manner until corrective actions are successfully completed.” **While an ongoing review may be necessary in some situations (e.g., situations that involve the implementation of interim compensatory actions), without any information to the contrary, once a component or system is established as operable, it is reasonable to assume that the component or system should continue to remain operable, and the previously stated verifications should provide that assurance.** Therefore, in many cases, an ongoing review is unnecessary and burdensome.

Resolution: Disagree, corrective actions are an appropriate process in lieu of following TS Actions. Until the programmatic objectives are met, the SSC(s) are Operable, but degraded, thus at some point in the corrective action program the decision may be to declare the affected SSC inoperable.

- I think there is truth in the comment & your resolution. We need a middle ground, like “periodic reviews as operating conditions warrant.”

✓(PGN-3)

Operable But Degraded or Nonconforming. Second Paragraph. First Line. Missing Word. “SSCs that determined to be operable...”. **Insert “are” after “that”.**

Resolution: Agree, text inserted as proposed.

(NUGEQ)

C. Section 6.2, “Operable But Degraded or Nonconforming” **We recommend certain changes in this section to assure consistency with terminology used in the context of environmental qualification.** This section includes an example of an SSC which may be operable, but which does not meet all of its environmental qualification (“EQ”) requirements. Specifically, an example of an operable but degraded or nonconforming SSC is given as follows:

For example, an SSC may be operable and not meet all of its qualification requirements (e.g., a safety related SSC with a 30 day post-accident EQ requirement, but an actual EQ life of only 7 days, may be found to be operable if it meets its 24 hour time requirement specified in its design basis accident analysis. Operation at this level ensures that adequate safety margins are maintained.

NUGEQ agrees with the intent of this example in Section 6.2 regarding operability and the design basis accident analysis. NUGEQ is concerned, however, that **the example is inconsistent with common EQ terminology.**

Suggested text changes for Section 6.2. NUGEQ suggests the example be modified as follows:

[Replace current example with suggested text.] For example, an SSC may be operable even though it may be in nonconformance with its environmental qualification requirements (e.g., an EQ SSC with a 30-day post-accident EQ operating time requirement, but demonstrated capable of performing its safety function(s) for only 7 days post-accident, is operable since it will perform its specified safety function within its 24-hour mission time requirement specified in its design basis accident analysis.) Operation at this level ensures that adequate safety margins are maintained.

Resolution: Probably agree, need an NRC QA person to validate the proposed example.

6.2.1 Operability and Corrective Actions to Restore Full Qualification are Separate Issues

(NEI)

1 Importance of restoring full qualification guidance not emphasized throughout guidance document

The guidance in this section is very important and should be given greater emphasis throughout the guidance document (see comments on Section 2.0).

Resolution: Possibly agree.... specific recommendations are needed.

✓ 2. We **recommend deleting the comma separated phrase** “whether due to degraded and nonconforming conditions” from the 1st sentence of the 2nd paragraph.

Resolution: Agree, deleted the phrase as recommended.

3 eliminating all options other than “restoration to full qualification” is burdensome

A licensee's corrective action program has three ways to resolve a degraded or nonconforming condition (see Section 7.4). However, the last sentence of the 2nd paragraph of Section 6.2.1 implies that “restoration to full qualification” is the only option available to a corrective action program to resolve an issue. *We recommend replacing this sentence with “Corrective actions must be taken to correct qualification concerns commensurate with the safety significance of the issues, as describe in Section 7, Corrective Actions.”* Also, delete “to restore full qualification” from the title of 6.2.1, delete “to restore full qualification” from the title of Section 6.2 in the Index, and delete “(i.e., restore full qualification)” from the end of the 1st paragraph of Section 6.2.1.

Resolution: - Agree with recommended sentence change, but disagree with “delete full qualification” since that term defined in section 4.4.

- Restoration to full qualification is required (by which ever method) I however do agree that the reference to

the Corrective Action Program need not be mentioned. Different licensee's may track and treat these issues differently . . . you could change "A licensee's corrective action program should restore the SSC to full qualification in a timely manner commensurate with the safety significance." . . . to A licensee should restore the SSC to full qualification in a timely manner commensurate with the safety significance. Also, this paragraph would be a good place to cross-reference the paragraph that talks about "restoration at the first available opportunity, but not to exceed the next available refueling outage"

✓ (Duke-#14)

The guidance in this section is very important and should be given greater consideration throughout the RIS. See comments for Section 2.0.

Resolution: see NEI #1, above.

6.3 Enforcement Discretion/Justification for Continued Operations

(NEI)

1. **Delete the reference to EQ JCOs and the use of NRC Generic Letters 87-02 and 88-07 in the 2nd and 3rd paragraphs (see comments on Section C.7).** We recommend changing the 2nd paragraph to read "The term Justification for Continued Operations (JCO) has been used by NRC in past guidance; however, the NRC no longer uses the term JCO." This will allow deletion of the 3rd paragraph.

Resolution: Open pending review (SDA).

✓ 2. We expect the Nuclear Utility Group on Equipment Qualification (NUGEQ) to provide more detailed comments on this section.

Resolution: Agree.

(NUGEQ)

We recommend changes to this section to reflect current practice and to delete reference to generic communications that related to certain equipment qualification program implementation issues which licensees have now completed. This section of the proposed guidance discusses circumstances wherein the Staff may authorize a licensee's actions that would result in noncompliance with plant operating license conditions or technical specifications. The proposed guidance explains that the NRC and the industry, at one time, referred to a licensee's technical basis for requesting NRC approval to operate in a manner prohibited by the license or technical specifications as Justifications for Continued Operation ("JCOs"). The Staff now issues its approval for such situations in the form of a Notice of Enforcement Discretion ("NOED"), and the term "JCO" is no longer used in this context.

This section apparently is included in the proposed inspection guidance to update information in Section 4.5 of Inspection Manual 9900: Degraded Conditions (Attachment 1 to GL 91-18, Revision 1). Unlike the current guidance, the proposed updated text now appears, however, to imply that licensees should use other generic guidance in lieu of the proposed inspection manual for evaluating functionality and resolving degraded and nonconforming conditions. This was not the implication of the earlier guidance in its reference (footnote 1 of Attachment 1 to GL 91-18, Rev. 1).

Proposed Section 6.3 states that "with the exception of the provisions in 10 CFR 50.49 for equipment qualification and certain generic communications described below, the NRC no longer uses the phrase JCO." This statement implies that the Staff continues to use the term "JCO" in the context of 10 C.F.R. § 50.49 and the referenced generic communications (*i.e.*, Generic Letter ("GL") 88-07, "Modified Enforcement Policy Relating to 10 CFR 50.49, 'Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants,'" and GL 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical

Equipment In Operating Reactors (USI A-46)"). NUGEQ suggests that the reference to these generic communications is no longer necessary for the reasons discussed herein.

Contrary to the statement in Section 6.3, 10 C.F.R. § 50.49 does not use the term "JCO." The term "JCO" is, however, referred to in the Statements of Considerations for 10 C.F.R. § 50.49 when discussing the analysis provisions in Section 50.49(i).³ The provisions in 10 C.F.R. § 50.49(i) required certain licensees to perform an analysis to demonstrate that the plant could be safely operated, pending completion of equipment qualification requirements imposed by Section 50.49. Specifically, the rule required applicants for operating licenses granted after February 22, 1983, but prior to November 30, 1985, to perform an analysis to ensure that the plant could be safely operated pending completion of equipment qualification programs and to submit that analysis to the NRC for consideration prior to the granting of an operating license. Since it is unlikely that any operating plant continues to rely on the Section 50.49(i) analysis, this use of the term "JCO" is no longer applicable to licensees.

By way of background, GL 88-07 explained the application of the then-current NRC Enforcement Policy to those instances where a licensee was in noncompliance with requirements for environmental qualification of electrical equipment beyond the November 30, 1985, deadline stated in the rule.⁴ The guidance in GL 88-07 regarding actions a licensee should take upon discovery of a discrepancy included performing a prompt operability determination, establishing a plan for correcting the deficiency, and developing a written justification for continued operation, which would be available for NRC review. As more fully described in our comment below regarding the proposed inspection manual, Appendix C, Section C.7, "Environmental Qualification," the NUGEQ maintains that the guidance in GL 88-07 regarding the development of a JCO is fully consistent with the intent of, and should be superceded by, the guidance in the proposed inspection manual. Consequently, use of the phrase JCO within the context of GL 88-07 need no longer apply to EQ nonconformances.⁵

³ See Proposed Rule, Environmental Qualification of Electric Equipment for Nuclear Power Plants, 47 Fed. Reg. 2,876 (Jan. 20, 1982); Final Rule, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants, 48 Fed. Reg. 2,729 (Jan. 21, 1983); and Final Rule, Environmental Qualification of Electric Equipment; Removal of June 30, 1982 Deadline, 49 Fed. Reg. 45,571 (Nov. 19, 1984).

⁴ The primary purpose of NRC GL 88-07 was to establish guidance regarding possible civil penalties applicable to licensees who were not in compliance with the requirements in 10 C.F.R. § 50.49 as of the November 30, 1985, deadline. As stated in the Enclosure to GL 88-07, the guidance in GL 88-07 related only to those violations of the EQ rule identified after November 30, 1985, and which related **back to action or lack of action before this deadline. Violations that occurred after November 30, 1985 (either as a result of plant modifications or because the plant was licensed after November 30, 1985), were to be considered under the normal enforcement policy in effect at the time of identification.**

Draft Section 6.3 also references GL 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment In Operating Reactors (USI A-46)," as providing guidance for preparing JCOs (the term "JCO" is used in the Enclosure to GL 87-02). GL 87-02 related to the resolution of Unresolved Safety Issue ("USI") A-46, "Seismic Qualification of Equipment in Operating Plants," and requested a schedule for completion of a seismic verification program at each affected plant. The NRC has closed this unresolved safety issue. On December 12, 2000, the Staff issued a memorandum closing USI A-46 because all plant-specific licensing activities associated with A-46 had been closed. See SECY-00-0239, "Weekly Information Report – Week Ending December 22, 2000. It is on this basis that NUGEQ suggests that the

Suggested text changes for Section 6.3:

For the reasons explained above (and in footnote 8), NUGEQ recommends that Section 6.3 be revised to clarify that the NRC no longer uses the term “JCO” in any regulatory context. NUGEQ suggests that the Staff revise Section 6.3 to state the following:

Under certain limited circumstances, ~~the~~ a licensee may find that strict compliance with the TS or a license condition would cause an unnecessary plant action that is not in the best interest of public health and safety. NRC review and approval is required before ~~the~~ a licensee takes actions that are not in compliance with ~~the~~ a plant’s license conditions or TS, except in certain emergency situations when 10 CFR 50.54(x) and (y) are applied. In the past, a licensee’s analysis and evaluation of the impact of such circumstances was referred to as a “Justification for Continued Operations” (“JCO”) and was submitted to the NRC for review and approval. The phrase “JCO” is no longer used in this context. Currently, guidance regarding these limited circumstances is discussed in NRC Inspection Manual Part 9900: Technical Guidance, “Operations – Notices of Enforcement Discretion.” This review can be in the form of a Notice of Enforcement Discretion (NOED), which is discussed in more detail in Inspection Manual Chapter Part 9900.

The phrase “JCO” Justification for Continued Operation (“JCO”) also ~~was has been used by NRC in past guidance and by some licensees to refer to a licensee’s technical basis for requesting authorization from the NRC to operate in a manner that is prohibited (e.g., by TS or the operating license). However, with the exception of the provisions in 10 CFR 50.49 for equipment qualification and certain generic communications described below, the NRC no longer uses the phrase JCO: in certain NRC generic communications to refer to a licensee’s basis for continued operation for specific issues in circumstances that did not require submittal to the NRC for review and approval. Since the operability and reportability guidance in these generic communications is consistent with the intent of this Inspection Manual, and because licensee actions associated with these generic communications have been completed, the NRC no longer uses the phrase “JCO.”~~*

[Delete last paragraph and replace with the following suggested footnote.]

[Footnote] The phrase “JCO” was used in Generic Letter 87-02, “Verification of Seismic Adequacy of Mechanical and Electrical Equipment In Operating Reactors (USI A-46),” and Generic Letter 88-07, “Modified Enforcement Policy Relating to 10 CFR 50.49, ‘Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants.’” These generic letters were intended to address a temporary period of time while licensees were implementing programs to resolve certain NRC generic safety concerns – specifically, seismic adequacy of equipment and environmental qualification of equipment – and to provide guidance on (1) performing an analysis of the impact of a nonconformance and (2) establishing compensatory measures to minimize that impact. Licensees may refer to these generic letters as historical references of methods that the NRC found acceptable regarding the preparation and use of continued operation determinations for these specific issues.*

Resolution: Open pending review EQ person.

- Agree. The above comments sound thoroughly researched and good to me!

reference to GL 87-02 need no longer be included in the inspection manual guidance,
consistent with NEI comments on this section.

7.0 CORRECTIVE ACTION

7.1 The Current Licensing Basis and 10 CFR 50, Appendix B

(NEI)

✓ 1. It is not clear what value this section will have for an inspector, especially the 2nd and 3rd paragraphs.

Resolution: o.k, but no changes required.

✓ 2. The purpose of **the first paragraph seems inconsistent with the definitions in Section**. The last sentence states that the CLB is “the basis for NRC approval of the plant design,” which disagrees with the definition of Current Licensing Basis in Section 3.1.

Resolution: Agree. Deleted the parenthetical statement.

3. The 4th **paragraph discusses the maintenance rule (10CFR50.65), which is the subject of Section B.1. We recommend moving this discussion to Section B.1.**

Resolution: Open pending review (SDA)

4. Performing (a)(4) risk assessments when risk-significant SSC is degraded or non-conforming

According to this section, a risk assessment equivalent to that performed in accordance with 10CFR50.65(a)(4) should be completed when a risk-significant SSC (as defined in the licensee’s (a)(4) program) is degraded/nonconforming to determine the potential change in the plant’s risk profile. While a risk assessment may be appropriate if the SSC is inoperable or non-functional, or if maintenance activities or compensatory measures to restore operability/functionality are involved, **it is not clear what benefit a risk assessment would provide for SSCs that, although degraded/nonconforming, are operable/functional and do not involve maintenance activities or compensatory measures. Without a corresponding safety benefit, a risk assessment is an unnecessary burden.**

Resolution: Disagree. The intent was to have the inspector assess risk management and CCDP. Daily risk management would be performed in accordance with the appropriate inspection guidance (71111.13) and the cumulative effects of the risk should not exceed 10e-6. The CCDP number was entered at the request of NRR reactor analyst’s review of the document. We need to clarify that the inspector needs to assess the daily and long-term impacts on CDF and CDP for the non-functional SSC.

✓ (Duke-#15)

According to this section, in instances when a risk significant SSC (as defined in the licensee’s 10CFR50.65(a)(4) program) is degraded or nonconforming, a risk assessment equivalent to that performed in accordance with 10CFR50.65(a)(4), should be completed to determine the potential change in the plant’s risk profile. While such risk assessments may be appropriate if the SSC is inoperable or if maintenance activities or compensatory actions are involved, it is unclear what benefit such risk assessments would provide for SSCs that are fully operable but degraded/nonconforming and do not involve compensatory actions or maintenance activities. Without a corresponding benefit to safety, such risk assessments are unnecessary and burdensome.

Resolution: Agree with the comment, sentences are deleted.

(Constellation Energy)

In the 4th paragraph, 2nd sentence, the statement, “... risk assessment equivalent to that performed in accordance with 50.65(a)(4) should be completed to determine potential changes in plant risk profile.” **needs more clarity.** We believe this language means that degraded/nonconforming conditions, where SSCs are determined to be inoperable/non-functional, can impact the plant’s probabilistic risk assessment (PRA) model used to assess the risk of performing maintenance activities under 50.65(a)(4). The

50.65(a)(4) Statement of Considerations states, in part “..NRC intends that the assessment process will examine the plant condition existing before commencement of the maintenance activity.” Paramount to accurate risk assessments of maintenance activities is that the plant’s PRA model accurately reflects the existing plant condition prior to the maintenance being performed. This expectation for an accurate existing plant condition PRA model requires the licensee to adjust the model to include certain inoperable SSCs due to a degraded or nonconforming condition. This adjustment is not considered a 50.65(a)(4) risk assessment, per se, however, this adjustment is necessary to ensure that the risk assessment of planned and emergent maintenance activities, including maintenance activities to resolve the degraded/nonconforming condition itself, is accurate and reflects the true plant risk.

We believe that this PRA model adjustment is the risk assessment equivalent discussed in the 4th paragraph of Section 7.1 of the draft RIS. If this is true, this section needs to be revised to more clearly discuss the above concept.

- Agree with comment but discussion possibly better in the Appendix.

In addition, 10 CFR 50.65(a)(4) Statement of Considerations states that assessments should also be performed when an unexpected SSC failure initiates required maintenance activities or when changes to conditions affect a previously performed assessment. This rule language suggests that 50.65(a)(4) risk assessments be conducted when risk significant SSCs are deemed inoperable/non functional, due to a degraded/non-conforming condition. **This guidance should reflect/discuss this fact.**

Resolution: Open pending review (SDA)

- Agree with this comment if SSC in scope of Maintenance Rule impacted. Presumably, this is all “risk significant SSCS”

7.2 Timing of Corrective Actions

(NEI)

1. Recommend rewording footnote 4 as follows “... NRC expects licensees to address degraded and nonconforming conditions affecting SSCs identified in Section 2.0, in accordance with their corrective action programs ...” **This rewording reflects a scope consistent with the rest of the guidance document and consistent with current GL 91-18 expectations.**

- Tentatively agree with this comment.

Resolution: Open discuss with a staff QA person.

X2 application of extent of condition review for all CATQs

We interpret the 2nd sentence of the 1st paragraph to establish specific intermediate expectations of the corrective action process in that an “extent of condition” review is expected for all “conditions adverse to quality.” **CATQ (condition adverse to quality) is a term from Criterion XVI of 10CFR50 Appendix B, but is not defined or used in the draft guidance except in this one place.** Corrective action programs should be judged on their ability to implement timely corrective action in a manner consistent with the safety significance of an issue.

Resolution: CATQ needed for OE concurrence

- I do not recall the exact person that requested this wording, but it has something to do with SCAC requiring and extent of cause and extent of condition review as part of the causal analysis, however the discussion alluded to the fact that risk significant or TS potential latent failures need to be addressed promptly . . . you should talk with Kerri on this issue.

- How will we know extent of condition reviews are done in a timely manner?

x 3. 2nd para. - defining reasonable efforts to complete corrective actions

The guidance on resolution of degraded/nonconforming conditions “at the first available opportunity” indicates that safety significance should be considered. However, there is little discussion on the safety-significance factors that might be applied to determine the timeliness of corrective action. **This section seems to turn “expectations” into “prescriptive guidance,” rather than leaving it up to the licensee to evaluate safety significance.** This is not the kind of evaluation that can be prescribed because there are factors other than safety significance to consider (e.g., compensatory actions).

Resolution: Disagree. The addition of “first available opportunity” adds a timeliness expectation which is consistent with Appendix B, “prompt corrective action.” The statement is clearly guidance in that the clause “In general” introduces the sentence.

- needed for laggards

4. 2nd para. 2nd sentence, - factors NRC uses to judge reasonable efforts to complete corrective actions

The 2nd sentence of the 2nd paragraph implies that the NRC may or may not accept a licensee's decision to extend the implementation of corrective action due to the need for more time to perform design, review, approval, and procurement activities, or other extenuating reasons. **What factors will NRC use to judge a licensee’s decision to extend a corrective action?** As a general matter, we do not support the incorporation of conditional language into the draft guidance. Licensees know they will be held accountable for corrective action decisions, and only they have the detailed information about and knowledge of the plant to make such decisions.

Resolution: No change. Needs more discussion at public meeting. How can licensees be “held accountable,” but not desire incorporation of additional guidance? Is it possible that a 50.59 review would be sufficient? Example is slight leak of pump oil that needs to be filled once per shift.

5. The term “extensive” is not defined in the 4th sentence of the 2nd paragraph. **This is another example of conditional language open to individual interpretation.**

Resolution: Open pending review IROB-A

x 6. Timing: missed corrective actions become defacto design changes

We strongly disagree with the sentence “If the corrective actions were not taken at the first available opportunity, then the inspector should consider the use of compensatory measures as defacto design changes to the facility.” **This reintroduces the old “defacto unreviewed safety question” (USQ) concept that no longer applies.** Furthermore, for most degraded/nonconforming conditions the timing of corrective action need not be a regulatory concern.

Resolution: Disagree with this sentence as worded. Safety Significance is what matters. See comment on 7.2.4.

*******- the whole discussion on first available opportunity, design change and risk significance is not being understood in full context. There was significant discussion on licensee’s who will institute a c temporary modification or corrective action and never actually correct the condition. The reviews for a temporary modification do not usually contain the same rigor as those done for a permanent modification. Additionally, long term operational impacts on drawings, procedures, maintenance activities are not considered. The intent is to have the inspector review these types of issues and provide feedback to management on the licensee performance relative to all of the other impacts of “defacto design changes”

- Discuss at meeting

7. The 2nd paragraph states “... the NRC expects licensees to implement repair or replacement activities at the next on-line maintenance window or outage of sufficient duration to adequately plan and implement the proposed corrective action. If the proposed corrective actions are extensive, the NRC expects them to be performed at the next refueling outage.” These expectations are higher than in revision 1 of Generic Letter

91-18. Given the wide range of conditions evaluated by licensees on an ongoing basis, **we do not believe it is appropriate to establish fixed expectations about the timing of corrective action. We recommend further dialogue on this issue.**

Resolution: - Discuss at meeting

8. The 3rd paragraph raises the bar on expectations compared to GL 91-18 revision 1. We do not believe that NRC expectations for documenting a delay in completion corrective action after the next refueling outage are cost-beneficial. Current practice is for a licensee to provide the basis for an extended schedule in the documentation that tracks the corrective action. **We recommend revising this section to be consistent with language in Section B.1 (1st paragraph) and GL 91-18 (Section 5.6 of revision 0, and Section 4.3 of revision 1).**

Resolution: - Discuss at meeting

(Duke-#16)

The guidance regarding the resolution of degraded/nonconforming conditions at the first available opportunity indicates that safety significance should be taken into consideration. As such, not all SSCs that are degraded or nonconforming represent conditions adverse to quality nor do they require entry into the operability process. **Thus, it would benefit licensees if the guidance provided specific examples that warrant NRC follow-up.** For example, reliance on a compensatory measure or operator action for operability should be an important consideration in establishing the reasonable time frame for completing corrective actions necessary to resolve degraded/nonconforming conditions.

Resolution: This is already in Section 7.3.

- Discuss at meeting

✓ (PGN-4)

Section 7.2. Timing of Corrective Actions. Second Paragraph. Last Sentence. Delete or clarify last sentence. This Section applies to the timeliness of corrective actions. **The last sentence of the second paragraph is the only sentence in this section that addresses compensatory measures.** Not only is the sentence misplaced (i.e., Section 7.3 applies to Compensatory Measures), but it is misleading in that it does not distinguish between compensatory measures taken to “enhance the capability of SSCs” and compensatory measures taken to “restore SCCs to an operable status”.

Resolution: Agree with comment. Need reference to Section 7.3, vice this sections.

(Constellation Energy)

In the 3rd paragraph of Section 7.2,- The NRC appears to create a new expectation that it should be an unlikely situation where licensees go beyond the next refueling outage to complete corrective actions. While it is appropriate for NRC to have a general expectation on when a licensee should complete corrective action, to suggest how likely or unlikely it is for a licensee to meet this NRC expectation is not reasonable, and **this language should be deleted.**

Resolution: Open pending review (SDA)

7.3 Compensatory Measures

(NEI) **Resolution:** Hold for discussions with staff, SDA, Eileen, and IROB-A

X1. We recommend this section be moved to Appendix C. We do not see the need to associate compensatory measures with corrective action to resolve a degraded/nonconforming condition.

Resolution: Disagree.

2. **The guidance document should note that it is not intended to be used to justify actions that**

create degraded/nonconforming conditions except in limited circumstances. For example, it would be inappropriate to breach a controlled, safety-related ventilation boundary in support of maintenance by using compensatory measures to justify the breach unless it can be verified that the ventilation system will continue to perform its specified safety functions (i.e., remain operable) and satisfy applicable TS requirements (reference TIA 98-008 and related correspondence).

Resolution: Agree.

3. The guidance document should be expanded to discuss the conditions/circumstances under which a licensee may intentionally cause a degraded/nonconforming condition. We believe that such “conditions/circumstance” would relate to the support of maintenance. The barrier breach discussed in RIS 2001-09 is an example. Its discussion of ...“verifying that the ventilation system will continue to perform its specified safety function(s) ...” with the barrier breached can be used only in maintenance-related situations. 10CFR50.65(a)(4) and NEI 96-07 revision 1 (Section 4.1.2) provide the regulatory bases.

Resolution: Agree, NRC staff to draft words.

x4. The guidance document should recognize three compensatory measure classifications: (1) compensation to restore operability, (2) compensation to reduce safety significance, and (3) compensation to enhance safety or unit performance.

Some licensees would prefer to use 10CFR50.65(a)(4) instead of 10CFR50.59 to review compensatory measures that rise to the level of temporary alterations. The requirement to apply 10CFR50.59 to such compensatory measures is a disincentive to licensees to implement compensatory measures that go beyond those needed to restore operability or to reduce safety significance of a degraded or nonconforming condition. As discussed at the public workshop on August 25, 2004, NRC should accept maintenance rule (a)(4) evaluations of compensatory measures in lieu of 10CFR50.59 screening for temporary procedure changes and facility changes in response to degraded or nonconforming conditions. Followup review is needed to ensure consistency between the guidance document and NEI 96-07.

Resolution:

- Disagree. What's the purpose of “3” compensatory measure classifications? Why are they treated differently? The discussion misses the point that 50.59 is for the additional impacts of the compensatory measures, not the effectiveness of the compensatory measure.

Maybe we already recognize (1) and (2). Agree that A(4) evaluations are a good idea. However, the comment begs the following Questions: #1 - What if not modeled? #2 - What if no maintenance? #3 - What if it is not in scope of M-Rule? #4 - What if DBAs change? M-Rule considers external events that change over time of temp. mods.

- Additionally, there was discussion on the fact that the 50.59 for a comp. measure is on the impact on the actions of the comp measure. If the licensee doesn't correct the condition at the 1st available opportunity, then the defacto design change will need to be re-evaluated.

✓ **5. The compensatory measures discussion implies that all compensatory measures are inferior to the as-licensed condition.** But there are situations when a compensated configuration can be equal to or better than the as-licensed condition from a nuclear safety perspective. Contrary to the draft guidance, compensatory measures can either improve the situation, or become the logical next step to support corrective maintenance and to compensate for the degradation.

The regulator needs to ensure that licensees avoid using operability as a basis to bypass the normal change evaluation process. The focus should be on the effects of compensatory measures, not the degraded or nonconforming condition.

Resolution: Agree, NRC staff incorporated this thought in the last sentence of the 1st paragraph.

6. **We recommend deleting the last sentence of the 2nd paragraph because it is a repeat of language that appears in the previous section.**

Resolution: Open IROB

✓7. We recommend rewording the 1st sentence of the 2nd paragraph to say "... usually implemented to restore plant operating margins (see Section 4.4) or reduce or eliminate operator work-arounds (e.g., remove hanging alarm)." **This recognizes the fact that in addition to restoring plant operating margins many compensatory measures are taken in response to Operations Department requests to remove or reduce work-arounds caused by a degraded condition.**

Resolution: Agree

✓8. The language "... to establish or restore SSCs to an operable status" in the 1st sentence of the 3rd paragraph leads to two comments:

(A) **By definition compensatory measures do not correct a degraded/nonconforming condition, so to say "restore SSCs to an operable status" incorrectly implies that the compensatory measures resolved the condition, which is not the case.** We recommend rewording the sentence to say "... to restore to an operable but degraded or nonconforming status."

(B) **The language "... to establish ..." is not consistent with similar language in the 1st paragraph.** As stated in Section 5.4, there is no indeterminate state of operability. The language "to establish" implies that an indeterminate state of operability exists during the operability determination process and that the proposed compensatory measures would establish operability to an otherwise indeterminate situation. The language "to restore" and "when restoring" is better language because the licensee would be restoring operability to an inoperable SSC.

Resolution: Agree

✗9. **We recommend deleting the 2nd sentence of the 3rd paragraph. Criteria and guidance for acceptable compensatory measures, in particular those involving use of operators, is already contained in Section C.5.** Using conditional terms such as "relatively simple" and "minimal operator or plant impact" are subjective and can lead to differences of opinion between an inspector and a licensee.

Resolution: Disagree

✓10. We recommend rewording the last sentence of the 3rd paragraph to say "...Criteria and guidance for the use of manual actions in place of automatic actions is provided in Section C.5." **This rewording provides a more definitive discussion on the use of the information in Section C.5.**

Resolution: Agree

11. **Many compensatory measures do not rise to the level of requiring a temporary procedure or facility change. This distinction needs to be made in Section 7.3.**

The 4th paragraph states "The impact of the compensatory measures themselves on the plant should be considered by licensees." We believe that only those compensatory measures involving a temporary procedure or facility change need to be reviewed under 10CFR50.59. **Many compensatory measures do not rise to the level of requiring a temporary procedure or facility change. This distinction needs to be made in Section 7.3.**

Resolution: Agree, screened out in 50.59 process. No changes made to the guidance document.

12. **The methods of interest to the NRC should be limited to "methods of evaluation" defined in NEI 96-07 revision 1.** The use of other methods of analysis or evaluation should be the licensee's decision

without having to apply Section C.4 criteria.

Resolution: Probably agree. Need to see the 96-07 words. Section 3.10, page 18. Discuss at the public meeting.

13. This section does not discuss the use of “alternative methods of evaluation” in an operability determination. The use of alternative methods as compensatory measures to address degraded/nonconforming conditions should be included in Sections 7.3, C.4, and C.14. We recommend followup meetings to discuss this issue.

- this and the section above both relate to this concept. In past discussions it was noted that licensee's would like to use an alternative method for a compensatory action or a basis for operability. The use of AST is a good example of this practice. In all cases the use of a method of evaluation different or not approved is covered by the 50.59 process and/or by requirements in the CLB. The licensee will have to process the “alternative method” type compensatory measure as if it were a change to, or using methods to ensure it meets the requirements of the CLB . . . see the AST discussion. See discussion on analytical methods in appendix c.

- Disagree that section 7.3 and C.4 need to be changed...however, agree that C.14 should be changed but should be discussed at the public meeting.

✓ (Duke-#17)

This section should note that compensatory actions should not be used as a means to justify actions which create degrading or nonconforming conditions unless it can be verified that the system will continue to perform its specified safety function(s) and that all applicable Technical Specification requirements will continue to be met. See comments in Section 1.0 for additional information.

Resolution: see NEI #2, above.

(Grime & Assoc)

When evaluating the impact of a degraded or nonconforming condition on plant operation, a licensee may decide to implement a compensatory measure as an interim step to enhance the capability of SSCs until final corrective actions to resolve the conditions are completed. Compensatory measures may be considered when enhancing the status of SSCs that have been determined to be operable but degraded or nonconforming, or as an interim step when restoring SSCs to operable status. **The following changes are recommended to Section 7.3:**

Compensatory measures for degraded or nonconforming conditions for SSCs that have been determined to be operable but degraded are usually implemented to restore plant operating margins (see Section 4.4).

Compensatory measures may also be used to establish or restore SSCs to an operable status. A “reasonable time frame” for completing corrective actions should be established in accordance with a licensee's corrective action process as discussed in Section 7.2.

- Disagree. These are two distinct categories.

Although compensatory actions may support additional corrective action process time by reducing the operability challenge safety significance, the compensatory action may also suggest a need for quicker corrective action. This is true Compensatory measures may also be used to establish or restore SSCs to an operable status. In general, these measures should be relatively simple to implement and have minimal operator or plant impact. In addition, the NRC expects that licensees will more quickly resolve degraded or nonconforming conditions using these compensatory measures. The reason for the greater emphasis is because reliance on such remedial measures suggests a greater degree of degradation, particularly if operator action is relied on in place of automatic actions. Use of manual actions in place of automatic actions is discussed further in Appendix C. 5 to this guidance.

The impact of the compensatory measures themselves on the plant should be considered by licensees. The approved regulatory guidance (Regulatory Guide 1.187, endorsing NEI 96-07, Revision 1) for implementing the revised 10 CFR 50.59 rule states:

"If an interim compensatory action is taken to address the condition and involves a temporary procedure or facility change, 10 CFR 50.59 should be applied to the temporary change. The intent is to determine whether the temporary change/ compensatory action itself (not the degraded condition) impacts other aspects of the facility or procedures described in the UFSAR."

Resolution: Disagree. Markup changes not incorporated because NEI #6 and NEI #10, above, retained more of the original guidance, yet clarified that compensatory measures "restore SSCs to an operable but degraded or nonconforming status"

Constellation Energy

1. We recommend that the 1st sentence in 1st paragraph be reworded to read, "Anytime, during the operability determination process a licensee may decide to implement a compensatory measure..." **This rewording clarifies the current wording regarding the timing and puts it in the context of actions being taken as part of the operability determination process.**

Resolution: - Disagree. Too permissive.

2. **The quote from NEI 96-07 should be removed from this section.** The concern is that NEI 96-07 defines "10 CFR 50.59 applies" as requiring at least a 10 CFR 50.59 screening. **Only those facility and procedure changes that otherwise would need a 10 CFR 50.59 screening should need to have 10 CFR 50.59 apply.**

Resolution: - Disagree. Misses the point about 50.59 evaluations.

3. **The NRC guidance provided in the 4th paragraph is not consistent with NEI 96-07, Revision 1.** The technical review of impact to the plant (i.e., is the compensatory measure safe and effective) should be completed prior to applying 10 CFR 50.59.

Contrary to the guidance in NEI 96-07, Revision 1, Section 7.3 the 4th and 5th paragraphs of the RIS only discuss the application of 10 CFR 50.59 to those compensatory measures rising to the level of a temporary procedure or facility change. This section needs to be reworded to recognize that the technical impact evaluation (i.e., is the compensatory measure safe and effective) needs to be completed first, prior to the 10 CFR 50.59 review. This rewording is necessary for consistency with the guidance in NEI 96-07, Revision 1.

In addition, Section 7.3 needs to discuss the fact that not all proposed compensatory measures are to be reviewed under 10 CFR 50.59. Only those compensatory measures rising to the level of requiring a temporary procedure or facility change are required to be reviewed under 10 CFR 50.59, per NEI 96-07, Revision 1. Many compensatory measures, typically taken by licensees, do not rise to this level. This distinction needs to be made in this Section.

Resolution: - Disagree. Misses the point about 50.59 evaluations.

✓4. We recommend rewording the end of the last sentence in the last paragraph of Section 7.3 as follows: "...or have other effects that should be reviewed." Using the term 'evaluated' alludes to requiring a 50.59 Evaluation. This is not what is meant here. **The existing language has the potential to be misunderstood and should be revised as suggested.**

Resolution: - Agree. Sentence revised as noted.

5. No discussion of using alternate methods of evaluation in operability determinations is provided in this

section. The 10 CFR 50.59 definition of "Facility as described in the UFSAR" contains methods of evaluation as part of the facility, therefore utilizing an alternate method of evaluation in an operability determination would be a compensatory measure. **This section as well as Sections C.4 and C.14 should discuss using alternate methods to address degraded/nonconforming conditions as compensatory measures.**

Resolution: - Probably agree. Needs NRC review.

6. When methods of evaluation, defined in NEI 96-07, Revision 1, are changed as a compensatory measure to address a degraded/nonconforming condition, the NEI 96-07, Revision 1 guidance would have a licensee apply 10 CFR 50.59 to the alternate method to determine the impact on other aspects of the facility. **Given the newly formulated Appendix C.4 acceptance criteria for alternate method use in response to a degraded/nonconforming condition, the application of 10 CFR 50.59 to such a compensatory measure should be waived.** Meeting the Appendix C.4 acceptance criteria should make the application of 10 CFR 50.59 to this compensatory measure a redundant exercise and a moot point.

Resolution: - Probably agree. Needs NRC review.

7. No discussion of using an alternate method evaluation where none currently exists is provided in this section. This situation, where a new analytical technique could be used in response to a degraded/nonconforming condition, where only deterministic design principles were used in the past, should be allowed and guidance on its use should be in this section and Appendix C.4.

Resolution: - Probably agree. Needs NRC review.

8. Nuclear Energy Institute 96-07, Revision 1, Section 4.3.2; Example #7 provides an example of a proposed activity, involving (permanently) substituting manual action for automatic action for performing Updated Final Safety Analysis Report (UFSAR)-described design functions. The NEI guidance states that this example would require prior NRC approval, as it would result in more than a minimum increase in the likelihood of occurrence of a malfunction of an SSC important to safety. In this same example, it is identified that ... "(Guidance for temporary substitution of manual action for automatic action, to compensate for a degraded/nonconforming condition, is provided in NRC Generic Letter 91-18, Revision. 1)".

With the issuance of this proposed RIS, the NEI 96-07, Revision 1, Section 4.3.2 guidance has two issues:

- 1) The reference to NRC Generic Letter 91-18, Revision 1 becomes invalid.
- 2) The proposed 50.59 Evaluation guidance, in RIS 2004-xxx, Section 7.3, addressing the situation of substituting manual action for automatic actions for the performance of UFSAR described design functions, is vague. Additionally, the current 50.59 Evaluation guidance, in NRC Generic Letter 91-18, Revision 1 (i.e., Section 4.7), addressing the situation of substituting manual action for automatic actions for the performance of UFSAR described design functions, is similarly vague.

NOTE: RIS 2004-xxx; Appendix C.5 provides the necessary criteria to determine if the proposed manual substitution is safe and effective (Figure 1 of NEI 96-07, Revision 1).

Section 4.7 provides the only guidance on compensatory measures in Generic Letter 91-18, Revision 1. There is no 50.59 Evaluation guidance, similar to that contained in NEI 96-07, Revision 1, Section 4.3.2; Example 7, as to when a proposed manual action substitution for an automatic action as a compensatory measure, would require prior NRC approval (i.e., 50.59 review) only. Section 4.7 concludes that, if the compensatory action (i.e., temporary procedure change substituting a manual action for an automatic action) itself impacts (i.e., adversely affects) other aspects of the facility described in the UFSAR (other UFSAR described design functions), then the temporary procedure change would require a 50.59 Evaluation. However, there is no clear guidance on how should this manual action substitution be evaluated

in using a 50.59 Evaluation.

The question that presents itself is “When would the NRC expect a licensee to request prior approval, under 50.59, for a temporary substitution of manual action for automatic action, to compensate for a degraded/nonconforming condition, in the performance of an UFSAR described design function”? It is clear the a proposed permanent substitution would require prior NRC approval; however it is less clear for proposed temporary substitutions. Nuclear Regulatory Commission should clarify their expectations in this area.

Resolution: - Probably agree. Needs NRC review.

7.4 Final Corrective Action

(NEI)

1. We **recommend deleting the parenthetical phrase “(with NRC approval, if required)”** in the 1st paragraph. The determination of whether NRC approval is required is presented later in this section where the application of 10CFR50.59 is discussed in detail.

Resolution: Agree, phrase is deleted.

2. We recommend followup discussion to **clarify the meaning of the 2nd paragraph.**

X 3. Does the NRC staff intend the 3rd sentence of the 2nd paragraph to mean that a 10CFR50.59 evaluation is required any time the resolution of a degraded or nonconforming condition is less than full restoration (because the change is a change to the facility or procedures as described in the UFSAR)? A 10CFR50.59 screening determines if a proposed change is a change to the facility or procedures as described in the UFSAR that should receive a 10CFR50.59 evaluation.

Resolution: Disagree with making guidance clearer by incorporating this comment. These words are identical to previous guidance.

4. We **recommend further discussion to modify the language associated with making a change in lieu of full restoration.**

(Kammer - Background)

Section 7.4 Final Corrective Action indicates in part that: The licensee is responsible for corrective action. A licensee's range of corrective action may involve ... (3) some modification of the facility or CLB other than restoration to the condition as described in the UFSAR. In addition, the following sections discuss changes to the licensing or design configuration requirements: ...The 10 CFR 50.59 process applies when the final resolution of the degraded or nonconforming condition differs from the established UFSAR requirement. At this point, the licensee plans to make a change to the facility or procedures as described in the UFSAR. The proposed change is now subject to the review process established by 10 CFR 50.59...

Resolution: What's the comment?

(Constellation Energy)

The discussion and example provided are not in the context of the first situation discussed in Section 7.4 [i.e., Item (3) discussed in the 1st paragraph of Section 7.4]. Section 7.4.1 discusses permanently leaving the degraded/nonconforming condition as-is and proposing other changes to the facility/procedures to permanently compensate for the as-is degraded /nonconforming condition. This entire section does not address making a change in lieu of full restoration. We believe this section requires rework to properly address correcting a degraded/ nonconforming condition with a change in lieu of full restoration.

Resolution: Agree. Need specific recommendations. Discuss during the meeting.

7.4.1 Change to Facility or Procedures in Lieu of Restoration Resolution: Agree. Followup meetings are needed to rewrite a bit and ensure consistency with NEI 96-07, Rev. 1.

(NEI)

1. We **recommend followup meetings** to better understand the content and objectives of this section.

(Kammer)

Background

Section 7.4 Final Corrective Action indicates in part that: The licensee is responsible for corrective action. A licensee's range of corrective action may involve ... (3) some modification of the facility or CLB other than restoration to the condition as described in the UFSAR. In addition, the following sections discuss changes to the licensing or design configuration requirements: ...The 10 CFR 50.59 process applies when the final resolution of the degraded or nonconforming condition differs from the established UFSAR requirement. At this point, the licensee plans to make a change to the facility or procedures as described in the UFSAR. The proposed change is now subject to the review process established by 10 CFR 50.59...

Comment

In the first situation, the licensee's proposed final resolution of the degraded or nonconforming condition includes other changes to the facility or procedures to cope with the uncorrected or only partially corrected degraded or nonconforming condition. Rather than fully correcting the degraded or nonconforming condition, the licensee decides to restore capability or margin by making another change. In this case, the licensee must evaluate the change from the UFSAR-described condition to the final condition in which the licensee proposes to operate its facility. If the 10 CFR 50.59 screening/evaluation concludes that a change to the TS is involved or the change meets any of the evaluation criteria specified in the rule for prior NRC approval, a license amendment must be requested, and the corrective action process is not complete until the approval is received or some other resolution occurs.

Resolution: What's the comment?

7.4.2 Change to the Current Licensing Basis Resolution: Open pending review IROB-A

(NEI)

1. We **recommend rewording the 1st sentence to read “In the second situation the licensee proposes to accept as-is the degraded or nonconforming condition.”** It is appropriate to replace “change to the CLB” with “accept as-is” because dispositioning a degraded or nonconforming condition does not always result in a change to the CLB. Also, “degraded or” should be added because accepting something “as-is” can resolve a degraded condition as well as a nonconforming condition.

(Kammer)

Background

Section 7.4 Final Corrective Action indicates in part that: The licensee is responsible for corrective action. A licensee's range of corrective action may involve ... (3) some modification of the facility or CLB other than restoration to the condition as described in the UFSAR. In addition, the following sections discuss changes to the licensing or design configuration requirements: ...The 10 CFR 50.59 process applies when the final resolution of the degraded or nonconforming condition differs from the established UFSAR requirement. At this point, the licensee plans to make a change to the facility or procedures as described in the UFSAR. The proposed change is now subject to the review process established by 10 CFR 50.59...

Comment

In the other situation the licensee proposes to change the current licensing basis to accept the as-found

nonconforming condition. In this case, the 10 CFR 50.59 review covers the change from the UFSAR-described condition to the existing condition in which the licensee plans to remain (i.e., the NRCREP - Response from "Comment on NRC Documents" licensee will exit the corrective action process by revising its licensing basis to document acceptance of the condition)... To resolve the degraded or nonconforming condition without restoring the affected equipment to its original design, a licensee may need to obtain an exemption from 10 CFR Part 50 in accordance with 10 CFR 50.12 or relief from a design code in accordance with 10 CFR 50.55a. The use of 10 CFR 50.59, 50.12, or 50.55a in fulfillment of 10 CFR 50 Appendix B corrective action requirements does not relieve the licensee of the responsibility to determine, for significant conditions adverse to quality, the cause, to examine other affected systems, to take action to prevent recurrence, and to report the original condition, as appropriate.

We recommend the following changes: Reword the 1st sentence to read, "In the first situation, the licensee's proposed final resolution of the degraded/nonconforming condition is to make facility/procedure changes to resolve the degraded/nonconforming, in lieu of full restoration." Delete the entire 2nd sentence and reword the 3rd sentence to read, "In this case the licensee should apply the 10 CFR 50.59 process to the proposed facility/procedure changes."

APPENDIX A: SURVEILLANCES

A.1 Operability During TS Surveillances

✓ (NEI) Match up with STS terminology

The wording of this section is inconsistent with normal TS usage. The term “LCO action statements” is often misused. We suggest the following rewording:

“If performance of TS surveillances requires that safety TS equipment be removed from service and rendered incapable of performing its specified safety function, the equipment is inoperable. The TS Actions shall be entered unless the TS explicitly direct otherwise. Upon completion of the surveillance, the licensee should verify restoration to operable status of at least those portions of the equipment or system features that were altered to accomplish the surveillance.”

“For example, TS allow licensees to perform surveillance testing during power operation, even though such testing may render TS equipment inoperable. TS permit use of Action statements to perform surveillance testing for a number of reasons. One reason is that the time needed to perform most surveillance tests is usually only a small fraction of the completion time associated with the Action statement. Another reason is that the benefits to safety (increased level of assurance of reliability and verification of operability) derived from meeting surveillance requirements is considered to more than compensate for the risk to safety from operating the facility in an Action statement for a small fraction of the completion time for the utilized required Actions.”

Resolution: Agree. Adjustments were made, some of which were not proposed.

A.2 Surveillance and Operability Testing in the Safety Configuration

(NEI)

✓ 1. We recommend rewording the 1st sentence to be consistent with Section 3.5: “Many systems are designed to perform both normal operation (i.e., specified functions) and specified safety functions.”

Resolution: Agree, changes made as proposed.

✓ 2. The sentence “Test failures should be examined to determine the root cause and ...” in the 3rd paragraph should not be interpreted to mean that a root cause evaluation for a significant condition adverse to quality be performed for every system test failure.

Resolution: Agree with comment, delete “root”

✓ (PGN-5)

Third paragraph. “Test failures should be examined to determine the root cause and ...”. This sentence needs greater clarity so that it is not interpreted by an inspector to intend that a root cause evaluation (Significant Condition Adverse to Quality) be performed when a system fails a test.

Resolution: See NEI #2, above.

A.3 Missed Technical Specification Surveillance

(NEI)

✗ 1. Section A.3 gives the background of TS SR 3.0.1 and TS SR 3.0.3, but does not discuss any particular operability issue. We recommend the section be revised to discuss operability issues related to missed surveillances, or be deleted.

Resolution: This guidance is from Part 9900, Operability, Section 6.6 (page 12). It has been updated to be

consistent with STS Revision 3, including Risk Informed guidance from TSTF-358.

✓ 2. The last paragraph on Page 20 refers to TSTF-358 Revision 8. The correct reference is TSTF-358 Revision 6.

Resolution: Agree

✓ 3. The reference to GL 87-02 in the 8th paragraph should be to GL 87-09.

Resolution: Agree

APPENDIX B: MAINTENANCE

B.1 Assessment and Management of Risk During Maintenance

(NEI)

X1. Establish consist use of “power operation” and 50.59 guidance and NUMARC 50.65 guidance
We recommend defining “power operation” (Modes 1, 2, and 3) in the last sentence of the last paragraph to be consistent with NUMARC 93-01, Section 11.3.2 (endorsed by 10CFR50.65). This would clarify the context of this paragraph as it relates to 10 CFR50.59.

Resolution Disagree. For temporary alterations associated with maintenance that are to be assessed as part of the 10 CFR 50.65(a)(4) risk assessment and, consistent with NRC regulatory guidance, 10 CFR 50.59 should also be applied to the maintenance activities if (1) during at-power operations, the temporary alteration will remain in effect in support of the maintenance for more than 90 days.....Replaced “power operation” in the guidance with “at-power operations” to be consistent 50.59 guidance.

2. The 2nd paragraph states “However, the subsequent performance of the equipment, as monitored under the Maintenance Rule or as tracked for the Reactor Oversight Process (ROP) Performance Indicators (if applicable) should be trended and failure probabilities in the PRA adjusted accordingly in order to justify the expectation of improved safety from the ” **We are concerned that this paragraph implies a regulatory expectation beyond the Maintenance Rule. Please clarify the intent of the paragraph performance of maintenance..**

Resolution: Open pending review IROB-A

✓ (NUGEQ)

We recommend clarification of the discussion related to the Regulatory Issue Summary regarding control of hazard barriers to assure consistency with NRC perspectives on this RIS set out in recent correspondence with NUGEQ. This section discusses management of risk (1) in assessing the time frame for restoring degraded or nonconforming SSCs or taking other actions; (2) by monitoring SSC performance and performing preventive maintenance; (3) by removing SSCs from service to perform maintenance; and (4) when using temporary procedures or alternations to allow maintenance. This section includes a discussion of temporary procedures and facility alterations in support of maintenance, and, as part of the 10 C.F.R. § 50.65(a)(4) risk assessment, the need to maintain compliance with the plant license (including TS) and applicable regulations. The proposed guidance appropriately refers to NRC Regulatory Issue Summary (“RIS”) 2001-09, “Control of Hazard Barriers,” as providing additional guidance regarding temporary procedures or facility alterations.⁶ **NUGEQ has followed the NRC’s actions related to hazard barriers and offers the following clarification to the proposed guidance based on our previous interactions with the NRC Staff.**⁷

⁶ NUGEQ notes that NRC generic guidance regarding temporary alternations to allow maintenance is provided in Regulatory Guide 1.182, “Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants,” which endorses Section 11 of NUMARC 93-07 as an acceptable means of implementing 10 C.F.R. § 50.65(a)(4). Section 11 discusses temporary alterations to the facility or procedures and suggests that the risk assessment should include consideration of the impact of these alterations on plant safety functions. To the extent that an alteration may impact operability or functionality of an SSC, the guidance in the proposed inspection manual may be useful in determining continued operability or functionality. The Staff may consider whether a statement to this effect should be added to Section B.1.

⁷ See NUGEQ to NRC, Letter, “Clarifications of NRC Guidance in Regulatory Issue Summary 2001-09, ‘Control of Hazard Barriers’” (May 16, 2003); and NRC to NUGEQ, Letter responding to NUGEQ’s

Suggested text changes for Section B.1:

NUREG suggests the following changes to the last paragraph in Section B.1:

The conduct of maintenance may also involve other temporary procedure or facility alterations to allow the maintenance to be performed or to reduce risk. Such alterations include but are not limited to jumpering terminals, lifting leads, and using temporary blocks, bypasses, or scaffolding. [Move sentence on RIS 2001-09.] These temporary alterations associated with maintenance are to be assessed as part of the 10 CFR 50.65(a)(4) risk assessment and, consistent with NRC regulatory guidance, a separate 10 CFR 50.59 review of the measures is not required unless (1) during power operations, the temporary alteration will remain in effect for more than 90 days, or (2) the temporary alteration is not removed and the plant is fully restored upon completion of the maintenance (see Regulatory Guide 1.187).

The planned removal of hazard barriers for maintenance is considered a temporary alteration. Additional guidance on hazard barriers is provided in Regulatory Issue Summary (RIS) 2001-09, "Control of Hazard Barriers," dated April, 2, 2001. Licensees must continue to comply with the plant technical specifications, particularly operability provisions applicable to the protected equipment. RIS 2001-09 indicates that the operability guidance in the NRC Inspection Manual can be used to evaluate the operability of such protected equipment.

Resolution: Agree, revised the RIS as proposed.

B.2 Operability During Maintenance

(NEI)

✓ 1. The 3rd sentence of the 1st paragraph states "... and any other action that may be required by the LCO ..." **Better terminology would be "... and any other action that may be required by the specification ..."** An LCO is a statement of limiting conditions, but does not by itself specify action.

Resolution: Agree, replaced "LCO" with "specification" which is a more all inclusive term.

✓ 2. What is the intent of the phrase "... licensees should be sensitive to the principles embodied by the definition of operability and functionality and the effect upon the operability of TS equipment" in the last sentence of the 1st paragraph? How would it be used by an inspector? We do not see its relevance to operability during maintenance.

Resolution: Agree, deleted "licensee should be sensitive to" and added "still apply" to the end of the sentence.

✓+ 3. We recommend revising the 1st sentence of the 2nd paragraph to state "Intentional entry into an action statement of an LCO—a specification is not a violation of the TS." The 2nd sentence of the 2nd paragraph should also be revised to state "... LCOs Actions may be entered for maintenance activities."

Resolution: Agree, changed the first occurrence of LCO. Retained the 2nd occurrence but revise the sentence to "the actions applicable to LCOs".

✓ 4. **Please expand on the discussion "operational convenience" in the 2nd paragraph.** The NRC has cited licensees for removing components from service for "operational convenience" but we know of no regulatory guidance on the definition of "operational convenience." Consistent with the STS, Generic Letter 87-09, NRC internal memoranda, and the Inspection Manual, the definition could be "an action that has operational benefit but without adequate regard to safety." It would help to have a definition and examples.

Resolution: Agree, added text to the sentence as an example, expanded the concept to include “economic benefit.”

✓ 5. Is the term “functionality” necessary in the last paragraph? Why is it necessary to reestablish “functionality” prior to exiting any TS LCO? It does not relate to operability. Also, the terminology “exiting any TS LCO” should be changed to “exiting an Action statement.”

Resolution: Agree, deleted the sentence.

✓ 6. The 2nd paragraph should reference NRC Inspection Manual Part 9900 - Technical Guidance, “Maintenance - Voluntary Entry into Limiting Conditions for Operation Action Statements to perform Preventive Maintenance.”

Resolution: Agree, added the reference.

✓ 7. The term “loss of function” should be defined in the 2nd paragraph. An example would be helpful.

Resolution: Agree, clarified the term as “specified safety function.”

✓ - 8. Appendix B should address RIS 2001-09 (hazard barrier removal) because it deals specifically with maintenance-related temporary alterations. It should also address the general subject of maintenance-related temporary alterations to procedures/facilities, including the technical evaluation and risk assessment of such alterations.

Resolution: Reference to RIS 2001-09 was added to B.1, Assessment and Management of Risk During Maintenance.

9. The 3rd paragraph, regarding maintenance that would render TS “nonconservative,” is unclear and could lead to inconsistent application. We recommend that it be revised, and an example provided, to ensure its intent is clear and its application consistent.

Resolution: - We can agree to this... you will propose something? (Limits, methods, etc.) AL 98-10 may have good words.

✓ (PGN-6)

Third paragraph. “If licensee activities to conduct maintenance would render TS “nonconservative”, then ...”. This entire paragraph is confusing and could lead to inconsistent application. It should be revised, and an example provided, to ensure its intent is clear and its application consistent.

Resolution: See NEI #9, above.

B.3 Relationship Between Operable and Available with Respect to the ROP Performance Indicators (PIs)
(new)

✓ No Comments

B.4 Aging Component Reliability and Connection to the Maintenance Rule (new)

(NEI)

1 regulatory basis for B.4 - Aging Component Reliability and 50.65

Please provide the regulatory basis for this section. It is currently outside the scope of 10CFR 50.65. If retained, we would view it as an example of the Inspection Manual being used to establish new requirements.

Resolution: Disagree

- this section was a new inclusion from the maintenance rule group. The concept was that current PRA

models utilize generic information based on average failure rates. The guidance to the inspector was to identify when plant specific or other age related information is available that the licensee is appropriately maintaining the PRA model with respect to managing plant risk in accordance with 50.65. Without specific guidance out there for standardized or validated PRA models this guidance is covered under 50.65.A.3 “take into account industry wide operating experience [which include site specific data] . . .” and in 50.65.A.4 “Before performing maintenance . . . the licensee shall assess and manage the risk . . . [which would include risk changes form site specific age related impacts on the PRA model]” To modify this section the MR group need to be consulted.

- Arose fro comments on what to do about degrading reliability. Maybe an appropriate in that context, but agree not as written.

- It was based on an answer to a DPO/yellow ticket on component reliability on Oconee. The DPO panel stated in their conclusions that the GL 91-18 guidance should and will be updated to address component reliability issues.

2. **Please clarify the objective of this section.** It should explain the relevance of aging-component reliability to SSC operability and resolution of nonconformances.

Resolution: Open pending review IROB-A

✓ 3. We recommend revising the 1st sentence of the 1st paragraph because a licensee is not required to have a basis for “continued operation,” but to have a basis for “operability.” **Compliance with TS will determine whether continued operation is allowed when a component is inoperable.**

Resolution: Agree, revise the 1st sentence to relate degraded/nonconforming conditions to SSC operability.

APPENDIX C: SPECIFIC OPERABILITY ISSUES

C.1 Relationship Between the General Design Criteria and the Technical Specifications

(NEI)

✓ 1. We **recommend revising the last sentence of the last paragraph** to say “The TS *provides a limited completion time for operation of the same system with only an SSC that is not single failure proof a single train based on an evaluation of the protection provided and the probability that the system will be needed during the completion time by using that system lineup for only the specified period.*”

Resolution: agree, reworded the sentence to clarify it.

2. Please address the crediting or not crediting of non-safety related (NSR) SSCs, i.e., SSCs that have no specified safety function, to support operability determinations of SSCs covered by this guidance (i.e., Section 1.0). **The NRC often challenges licensees if they credit NSR equipment to support operability.**

Resolution:- Should be permitted since part of “realistic” evaluation, but need examples to confirm

3. ***This section should note that design-basis accidents (DBAs) and regulations are connected to plant-specific TS operability requirements by means of the UFSAR.*** For example, GDC-19 requires that the Control Room Area Ventilation System (CRAVS) be designed to maintain the control room environment for 30 days of continuous occupancy after a DBA such that an individual in the control room will receive a radiological dose of less than 5 rem whole body. In some TS the 5 rem limit is a condition of CRAVS operability. Thus, in some cases a GDC can have a direct relationship to TS operability requirements.

Resolution: - Interesting fact. So what?

(Duke-18)

This section should note that design-basis events and regulatory requirements may have plant-specific considerations related to TS operability requirements and that system operability requirements in TS should be consistent with the safety analysis of specific design-bases events and regulatory requirements. For example, GDC 19 requires that the Control Room Area Ventilation System (CRAVS) be designed to maintain the control room environment for 30 days of continuous occupancy after a Design Basis Accident (DBA) without exceeding 5 rem whole body dose or its equivalent to any part of the body. According to TS, the 5 rem limit is also a condition of CRAVS operability. Thus, in some cases, the inability to satisfy the design criteria of the GDC may have a direct relationship to TS operability requirements.

Resolution: Open pending review IROB-A

C.2 Treatment of Single Failures in Operability Determinations

✓ No comments

C.3 Treatment of Consequential Failures in Operability Determinations

(NEI)

✓ 1. We recommend revising the 1st sentence of the 2nd paragraph to begin “When an SSC is degraded or nonconforming ...” **Otherwise the paragraph implies that operability determinations must be performed for consequential failures absent any degraded or nonconforming condition that might prompt such an evaluation.**

Resolution: Agree, changes made.

C.4 Use of Alternative Analyses in Operability Determinations

(NEI)

✓ 1. **This section is an excellent addition to the guidance.** It discusses how operability determinations can be based on analysis, test, partial test, or experience with operating events, engineering judgment, or a combination of these factors, taking into consideration equipment operability requirements.

Resolution: Agree.

x 2. **Alternative analysis - AST cannot be used, but C.14 discusses implementation of AST**

The **second sentence of paragraph (1) is inconsistent with the remainder of the section.** For example, it implies that an Alternative Source Term (AST) cannot be used for an operability determination, whereas Section C.14 discusses how an AST might be used to address control room in-leakage.

Resolution: Disagree. C.14 discussion is for AST implemented under 50.67.

✓ 3. **Using analytical methods outside the CLB operability determinations**

Another situation in which analytical methods can be used to support operability is the situation where a method outside the CLB is applicable to a degraded or nonconforming condition. **The new method should be permitted as part of an operability determination.**

Resolution: Agree. This is in paragraph (3) guidance. No change to the guidance is necessary.

4. **Identifying Alternate Analyses**

The *“analyses of interest” in the context of Section C.4 should be those analyses encompassed by the NEI 96-07 revision 1 definition of “Methods of Evaluation.”*

Resolution: Possibly agree. Need to see NEI 96-07. Section 3.10, page 18.

Discuss at the public meeting.

✓ 5. We **recommend clarifying the 2nd sentence** to read “The use of these alternative and normally more recent methods or codes may raise complex plant specific issues; however they may be acceptable and useful in operability determinations.”

Resolution: Agree, changed the sentence as recommended.

✓ 6. **Paragraph (2) is not clear.** Is it referring to new methods that are not described in the UFSAR?

Resolution: - Refers to method in UFSAR. Agree with modification to para.(3) to UFSAR.

✓ 7.

We recommend revising paragraph (3) to say “If the specific analytic method originally used is not specified in a regulation or license condition, the licensee is permitted to use an alternative method, even if the alternative method differs from the analytic method described in the current licensing basis. The licensee should evaluate the effects of a new method to ensure its use is consistent with the application and the applicable acceptance criteria in the current licensing basis. **Accepting a new method simply because it has been approved for use at a similar facility does not alone constitute adequate justification.**”

- Agree. In addition, the new method must be incorporated into the CLB using 50.59 or other appropriate processes.

8. **This section should be revised to indicate that valid “best estimate” codes, methods, or techniques are acceptable.**

Resolution: Tentatively agree. Discuss at the public meeting.

- Need examples. Should be consistent with NEI 96-07 since that is how CLB will be brought up to date.

✓ (Duke-#18)

This section is an excellent addition to the guidance document. Furthermore, it is consistent with existing guidance which allows an operability determination to be based on analysis, test, partial test, experience with operating events, engineering judgment, or a combination of these factors taking into consideration equipment operability requirements.

Resolution: See NEI #1, above.

(Constellation Energy)

1. **No discussion of using alternate methods of evaluation as a compensatory measure in operability determinations is provided in this section.** The 10 CFR 50.59 definition of “Facility as described in the UFSAR” contains methods of evaluation as part of the facility, therefore utilizing an alternate method of evaluation in an operability determination would be a compensatory measure. **This section as well as Section C.14 should discuss using alternate methods to address degraded/nonconforming conditions as compensatory measures.**

Resolution: Probably agree, but need recommendations.

- This is good input. We need to review NEI 96-07 and make this consistent.

2. **No discussion of using an alternate method evaluation, where none currently exists, is provided in this section.** This situation, where a new analytical technique could be used in response to a degraded/nonconforming condition, where only deterministic design principles were used in the past, should be allowed and guidance on its use should be in this section.

Resolution: Probably agree, but need recommendations

- Already in para. (3).

C.5 Use of Manual Action in Place of Automatic Action

(NEI)

1. **This section should note that compensatory actions should not be used as a means to justify actions which create degraded or nonconforming conditions.** See similar comments on Sections 1.0 and 7.3. Resolution: Agree, need a recommendation. We think discussions of compensatory measures should reside in section 7.3.

✓ 2. We recommend changing the section title to “Use of Temporary Manual Action in Place of Automatic Action in Support of Operability.”

Resolution: Disagree.

- Agree. Changes made as noted.

✗ 3. The scope of the 2nd paragraph is not clear. The statements are general in nature. **We recommend using the first two sentences of the 2nd paragraph to create a new opening paragraph for the section.**

Resolution: Disagree, reordered the paragraph.

4. **Additional dialogue is needed to identify and define the key terminology in this section.** We have several questions about the terminology that would be best explored in a **public meeting.**

Resolution: need specific questions. Discuss at public meeting.

5. The guidance on “dedicated operator” in the 4th paragraph seems inconsistent with NEI 99-02 (Reactor Oversight Process) and NUMARC 93-01 (Maintenance Rule). For example, the paragraph indicates that consideration should be given to “ability and timing in getting to the area.” NEI 99-02 and NUMARC 93-01 indicate that credit for a dedicated local operator can be taken if the operator is positioned at the train.

Resolution: see PGN-7, below.

✓ (Duke-#19)

This section should note that compensatory actions should not be used as a means to justify actions which create degrading or nonconforming conditions. See comments in Sections 1.0 and 7.3 for additional information.

Resolution: see NEI #1, above.

(PGN-7)

Use of Manual Action in Place of Automatic Action. Fourth paragraph. The guidance in this paragraph pertaining to use of a dedicated operator is not consistent with the guidance for using dedicated operators in NEI 99-02 (Reactor Oversight Process(ROP)) and NUMARC 93-01 (Maintenance Rule(MR)) safety system unavailability. For example, this paragraph indicates that consideration should be given to “ability and timing in getting to the area”. NEI 99-02 and NUMARC 93-01 indicate that credit for a dedicated local operator can be taken only if s(he) is positioned at the proper location throughout the duration of the test for the purpose of restoration of the train. As written in Appendix C, a licensee could determine that an SSC being was operable for Technical Specifications but unavailable for the ROP and MR. While the ROP and MR address different regulatory programs than GL 91-18, greater clarity/consistency is needed relative to what constitutes an acceptable dedicated operator.

Resolution:- We need to research this. Also pull in IN 97-78

C.6 Use of Probabilistic Risk Assessment in Operability Decisions

(NEI)

1. The 1st full sentence at the top of page 28 should be reworded to say “The inherent assumption is that the occurrence conditions or event *occurs* exists and that the safety function can be performed.” Resolution: Agree, changes incorporated.

x 2. The use of PRA should not be prohibited when making operability decisions

The statement “The inherent assumption is that the occurrence conditions or event exists and that the safety function can be performed” conflicts with accepted practices and examples in the draft guidance. For example, Section C.9 (Support System Operability) states “... a ventilation system ... may not be required in the summer ...” and “... the electrical power supply for heat tracing ... may not be required in the summer.” In practice this concept could also apply to other weather-related events such as hurricanes, tornadoes, and flooding. The use of PRA should not be prohibited when making such decisions. A responsible licensee taking credit for the external temperature to support an operability determination will likely be able to calculate the external temperature at which operability is called into question. To avoid relying on operators to detect the unacceptable temperature condition and declare the support system inoperable, the licensee needs assurance that, during the anticipated degraded condition, the temperature will not reach the unacceptable temperature. Such analysis will very likely include probabilistic techniques.

Resolution: Disagree. Don't want to allow use of PRA. No change made to the guidance.

-

x3. The use of PRA should be encouraged for operability decision-making

The use of PRA should be encouraged for operability decision-making. If component degradation increases the probability of an accident upon component failure, then quantifying the increased accident probability should be encouraged, not discouraged. A calculated result that would satisfy 10CFR50.59 criteria for increased accident frequency should be an acceptable use of engineering judgment supported by a calculation.

Resolution: Disagree. Don't want to allow use of PRA. No change made to the guidance.

- Will licensees use generic or plant-specific data?? How will they know whether historical data represents recent failures?

4. The use of the broad term “decisions” rather than the narrower term “determinations” implies that it would be unacceptable for a licensed operator or unit management to ask or discuss a statistical issue when reviewing an operability determination.

Resolution: Agree, comment incorporated.

x5. The use of qualitative PRA-based standards (i.e., “less than minimal”) should not be prohibited when making operability decisions

Although the time limits for completing operability determinations often will not support detailed probabilistic-based analysis, having some link to probabilistic-based criteria can help support engineering judgment. For example, a 10CFR50.59 criterion considers a component change “less than minimal” if the increase in component failure likelihood is less than doubled. When evaluating reliability challenges in operability determinations, an engineering judgment about the increase in likelihood of failure should be permitted to refer to this criterion without the determination being challenged because it used a probability argument. For example, the conclusion could be that the increase in failure likelihood would be much less than doubled and could easily pass criteria for being left permanently at the higher failure rate.

Resolution: Disagree. Don't want to allow use of operability in a quantitative way. No change made to the guidance.

X (Grime and Assoc)

[C.6] Although previously stated as being ‘off limits’ for changes, the PRA discussion reveals some inconsistencies within the draft RIS. The guidance should correct this and take the opportunity to recognize potential valuable probabilistically based analysis. This section raises several concerns:

see NEI #2, above. a. The statement that “the inherent assumption is that the occurrence conditions or events exists and that the safety function can be performed.” Conflicts with accepted practice and examples in the draft RIS. Section C.9 “Support System Operability” states “a ventilation system ... may not be required in the winter” and “the electrical power supply for heat tracing ... may not be required in the summer.” In practice this concept has also been applied to other weather related events such as hurricanes, tornadoes and flooding. My two concerns are the conflict and the prohibition on use of PRA when making such decisions.

A responsible licensee taking credit for the external temperature to support an operability determination will likely be able to calculate the external temperature at which operability is called into question. To avoid relying on operators to detect the unacceptable temperature condition and declare the support system inoperable, the licensee desires assurance that during the anticipated degraded condition, the temperature will not reach the unacceptable temperature. Such analysis will very likely include probabilistic techniques. This would be using probability of occurrence of an external event.

Resolution: Disagree. Exceptions do not make the rule. So do the analysis ahead of time and put it in the CLB or declare the SSC inoperable and do the calculations & CLB change during the CTs.

see NEI #3, above b. Use of PRA should be encouraged for some operability related decisions. If the degraded component would tend to increase the probability of an accident if it failed, quantifying the increased accident probability should be encouraged versus prohibited. Lacking specific criteria for such operability situations, a calculated result that would meet the 10 CFR 50.59 criteria for increased accident frequency should be free from a challenge to their use of engineering judgment supported by a calculation. The use of the broad term ‘decisions’ versus narrower ‘determinations’ implies that it would be unacceptable

for a licensed operator or unit management to even ask or in any way discuss a statistical issue related to a decision when reviewing an operability determination.

- quantifying the increased accident probability is encouraged versus prohibited...see A(4)

see NEI #5, above. c. Although the time limits for completing operability determinations often will not support detailed probabilistic-based analysis, having some link to probabilistic based criteria can help support engineering judgment. For example, a 10 CFR 50.59 criterion considers a component change 'less than minimal' if the component failure likelihood increase is less than doubled. When evaluating reliability challenges in operability determinations, the engineering judgment on the failure likelihood increase should be permitted to refer to this criterion without fear that the determination will be challenged for using probability. For example, it could conclude that the increase in failure likelihood would be much less than doubled and could easily pass criteria for being left permanently at the higher failure rate.

Recommended change:

C. 6 Use of Probabilistic Risk Assessment in Operability Decisions

Probabilistic risk assessment (PRA) is a valuable tool for the relative evaluation of accident scenarios while considering, among other things, the probabilities of occurrence of accidents or external events. The definition of operability states, however, that the SSC must be capable of performing its specified safety function(s). The inherent assumption is that the occurrence conditions or event exists and that the safety function can be performed. ~~The use of PRA or probabilities of the occurrence of accidents or external events is not acceptable for making operability decisions.~~ **The use of PRA or probabilistic approaches to determine the probabilities of the occurrence of accidents or external events during a period when an SSC's operability is challenged has limited applicability for making operability decisions.**

Acceptable use of probabilistic approaches include:

- **Quantifying potential accident frequency increases due to a degraded or nonconforming SSC. determining the increased failure likelihood for SSCs at risk of increased failure.**
- **When determining potential accident frequencies and malfunction likelihoods the no more than minimal criteria from NEI 96-07, Revision 1, may be used, however, the anticipated operability challenge duration may not be considered.**
- **Determining the likelihood of external events such as highest temperature or tornado likelihood during the degraded or nonconforming period.**

However, PRA may provide valid and useful supportive information for a license amendment as part of corrective actions. The PRA is also useful for determining the safety significance of SSCs. The safety significance, whether determined by PRA or other analyses, is a necessary factor in decisions on the appropriate " timeliness" of operability determinations. Specific guidance on the timeliness of determinations is presented in Section 5.2.

Resolution: Disagree. Don't want to allow use of PRA. No change made to the guidance.

TB- re: the second bullet, how would this be used?

C.7 Environmental Qualification **Resolution: Open need to discuss.**

(NEI)

1. The requirement to write a JCO implies it is different from a prompt operability determination. **We believe they are the same thing.**

2. Section C.7 addresses three aspects of EQ deficiencies:

(1) Prompt determination of operability – This determination is not specific to EQ deficiencies. Section 5.0 discusses how to perform and document a prompt operability determination. **There is no need to repeat it in Section C.7.**

(2) A plan with a reasonable schedule for corrective action – Making a plan is not unique to EQ deficiencies. Section 7.0 discusses how to implement corrective actions within a reasonable schedule. **There is not need to repeat it in Section C.7.**

(3) Write a JCO – This action is a combination of (1) and (2). However, it is presented in this section as something different. We believe that performing (1) and (2) is sufficient for any deficiency, including EQ. **The term JCO and references to GL 88-07 should be deleted from the guidance.**

3. We expect that the Nuclear Utility Group on EQ (NUGEQ) will provide more detailed comments on Section C.7. **o.k.**

(Constellation Energy)

This section uses language that is inconsistent with the rest of the RIS as follows:

1. Use of the term “potential deficiency” is inconsistent with definitions provided in Section 4.3. The correct terminology should be environmental qualification (EQ) nonconformance to be consistent with Section 4.3.

2. Use of the term “prompt determination” has specific meaning (Section 5.3) in this RIS. The existing Section C.7 text would imply that, for EQ nonconformance, an immediate determination (Section 5.2) is not required. We do not believe this is NRC’s intent.

3. Use of the term “reasonable assurance” is not defined in this RIS and is inconsistent with the overall NRC expectation (Section 5.4). This term is also found in Sections 3.5 and 4.1

4. Another issue is the language in Section C.7 that says, “The licensee should also show that subsequent failure of the equipment will not result in significant degradation of any specified safety function or give misleading information to the operator.” This language appears to require a licensee to assume failure of the EQ equipment during an accident that the licensee has determined to be operable/functional by completing an operability/functionality determination. This is confusing.

5. If the determination process concludes that the equipment is operable/functional, then the equipment is operable/functional for it’s entire mission time. Section C.7 contains dated language that should be deleted.

(NUGEQ)

We recommend changes to this section so that it will be consistent with guidance in other sections regarding the treatment of degraded or nonconforming conditions related to environmental qualification (“EQ”) of

equipment. By providing detailed guidance regarding EQ of electrical equipment, this section unnecessarily suggests that a licensee's actions when EQ deficiencies are identified should be different from those taken for other degraded or nonconforming conditions. The NUGEQ disagrees that EQ deficiencies should be treated differently and maintains that there are no technical or regulatory reasons to treat EQ equipment nonconformances, operability/functionality determinations, or reportability differently from other SSCs. The guidance in this section, which is generally a restatement of language in GL 88-07 (see above), suggests that upon discovery of an EQ deficiency, the licensee is expected to: (1) make a prompt operability determination; (2) establish a plan for correcting the deficiency; (3) develop a written justification for continued operation; and (4) evaluate reportability under TS, applicable regulations, and pertinent reporting requirements. The proposed inspection manual provides appropriate and consistent guidance regarding each one of these actions without differentiating EQ nonconformances from other nonconformances.

With regard to EQ operability/functionality determinations, the proposed guidance in Section 5.0, "OPERABILITY DETERMINATIONS," provides appropriate guidance for performing operability determinations. Further clarification to that guidance is unnecessary and could create confusion. Specifically, the guidance in Section C.7 could be misleading since it uses a term "prompt determination" in a way that is likely inconsistent with the terms "immediate determination" and "prompt determination" discussed in Section 5. Section C.7 guidance could create further confusion in that it discusses operability but not functionality, whereas many EQ SSCs may not be directly or indirectly related to TS operability and, thus, a nonconformance would result in an assessment of functionality rather than an operability determination.

With regard to plans for corrective action, the proposed guidance in Section 7.0, "CORRECTIVE ACTION," provides appropriate guidance and further clarification in Section C.7 is unnecessary. The Section C.7 guidance could be misleading because a licensee could construe the term "immediate steps" to imply something different than the guidance in Section 7.0. NUGEQ does not believe that the NRC Staff had an expectation that it be construed in a manner different than the guidance in Section 7.

With regard to the reference in Section C.7 to a "JCO," the proposed guidance in Section 5.8, Documentation, provides appropriate guidance on documenting the operability determination and further clarification in Section C.7 is unnecessary. The Section C.7 guidance could be misleading in that it states that the EQ JCO "includes an operability determination," but it does not provide guidance as to the contents of such a JCO. Reference to GL 88-07 does not clarify this potential confusion. The GL is unclear regarding the contents of the EQ JCO and might be interpreted to imply that an EQ JCO should include a corrective action plan. The Section C.7 language also could be interpreted to suggest that the EQ JCO include the reportability findings. The phrase "EQ JCO" is confusing since licensees might conclude that the JCO should include justification for continued plant operation (although neither GL 88-07 nor Section C.7 contain such guidance). In this regard, the guidance in Section 6.0, "OPERATIONS BASED ON OPERABILITY DETERMINATIONS," is more appropriate and should be used for EQ nonconformances as similar to other nonconformances.

Concerning reportability determinations, the proposed inspection manual guidance – in particular, Section 7.1, "The Current Licensing Basis and 10 CFR 50, Appendix B" – provides appropriate guidance regarding reportability determinations; thus, further clarification in Section C.7 is unnecessary. The Section C.7 guidance could be misleading since a licensee could construe its discussion of reportability to imply that NRC expectations are different for EQ nonconformances.

Although the operability/functionality and reportability guidance in GL 88-07 predates the generic guidance in the inspection manual, the NUGEQ believes that it is conceptually consistent with the proposed guidance

regarding operability/functionality considerations and other licensee actions when nonconformances are identified. NUGEQ maintains that there is nothing unique about licensee actions in response to EQ equipment nonconformances and believes that our view is consistent with current NRC expectations.

As discussed above, GL 88-07 was issued primarily to clarify EQ-unique NRC enforcement guidance, which is now obsolete. This GL 88-07 guidance was applicable during a period when licensees were initially establishing EQ Programs. NUGEQ believes that the enforcement guidance in GL 88-07 is no longer applicable by its own terms, given that licensees have completed implementation of EQ programs that assure compliance with the requirements in 10 C.F.R. § 50.49. Discrepancies that may be identified in the future should be evaluated in accordance with a licensee's program for nonconforming conditions, similar to other nonconformances with regulatory requirements. Similarly, enforcement actions would be considered in accordance with the Reactor Oversight Process.

Suggested text changes for Section C.7:

NUGEQ provides the following suggested text to replace the draft language in Section C.7: *When ~~the NRC or a licensee identifies a potential deficiency in the nonconforming condition affecting the environmental qualification of electrical equipment (i.e., a licensee does not have an adequate basis to establish qualification); (see 10 C.F.R. § 50.49), the licensee is expected to [delete remainder of paragraph] apply the general operability/functionality determination, reporting, and nonconformance resolution/corrective action guidance contained in this Inspection Manual. When a licensee does not have an adequate basis to establish full qualification for electrical equipment within the scope of 10 C.F.R. § 50.49, licensee actions should include performing and appropriately documenting operability determinations (or assessing functionality if the electrical equipment is not explicitly subject to a TS requirement),* establishing compensatory actions (as necessary), initiating corrective actions necessary to restore full qualification (including establishing a schedule for completing the corrective actions), and determining reportability in accordance with TS and other NRC reporting requirements (as applicable).~~*

[Replace NOTE with the following suggested footnote.]

[Footnote] The licensee may be able to make a finding of operability/functionality using analysis and partial test data to provide reasonable assurance that the equipment will perform its specified safety function(s) in its accident environment when called upon to do so.*

C.8 TS Operability vs. ASME Code, Section XI Operative Criteria (NEI)

1. The 1st sentence is not consistent with the remainder of the paragraph. Deleting the sentence and the word "However" in the 2nd sentence provides the desired guidance and eliminates the inconsistency.

Resolution: need clarification to understand the comment.

2. The last sentence of the 1st paragraph states that the "applicable LCO shall be entered." LCOs are not entered or exited. LCOs are the statement of the lowest functional capability of the SSC. A better phrase would be "the system shall be declared inoperable."

Resolution: Agree, comment incorporated.

(Constellation Energy)

The last sentence of the first paragraph uses incorrect terminology. It states that the “applicable LCO shall be entered.” Limiting Conditions for Operation (LCOs) are not entered or exited. Limiting Conditions for Operation are the statement of the lowest functional capability of the SSC. The correct phrase would be, “the system shall be declared inoperable.”

Resolution: Agree, comment incorporated.

C.9 Support System Operability (revised)

(NEI)

1. Relationship between support systems

The relationship between support systems and supported systems is discussed at length in the STS and the STS Bases. It is important that the NRC guidance be consistent with the STS. **We do not believe that Section C.9 uses consistent terminology.**

Resolution: NEI needs to tell us what is better.

Discuss at the public meeting. However, we agree in principle that it is important that the NRC guidance be consistent with the STS.

2. We recommend the 2nd paragraph be revised to say “When a support system that is not explicitly addressed in TS is determined to be incapable of performing one of its necessary related support functions (i.e., non-functional), the licensee must immediately perform an operability determination for ~~(a) declare inoperable~~ each specified system whose own operability depends on that support function, and, *if necessary, declare the supported system inoperable.* ~~(b) enter the supported system’s TS LCO. In addition-~~ If applicable ...”

Resolution: Agree.

3. We recommend that the 3rd paragraph (referring to functionality) be deleted. Section C.9 should be limited to discussion of operability.

Resolution: Agree.

✓4. The 5th paragraph refers to RIS 2001-09, which is out of place in Section C.9. The RIS deals with maintenance-related barrier removal and control. This type of discussion should be in Appendix B.

Resolution: Agree with comment, the reference is deleted. RIS 01-009 is referenced in Appendix B, Section B.1 Assessment and Management of Risk During Maintenance.

5. The 7th paragraph (beginning with “Support systems explicitly expressed...”) is inconsistent with the STS. For plants with TS based on the STS, LCO 3.0.6 allows Conditions and Required Actions of the support system to be followed and Conditions and Required Actions of the supported system to be not followed. Therefore, the more restrictive Completion Time does not have to be met. We recommend the paragraph be deleted.

Resolution: Agree.

6. The last paragraph states that the guidance in Section C.9 is consistent with STS LCO 3.0.6. As described above, we disagree.

Resolution: Open, changes made to address comments... the inconsistencies should be resolved.

7. The following statements are on page 30:

(1) "... the specified completion time to restore a support system to operable status ... should be equal to or less than the restoration completion time for any system that requires the support system function for its own operability."

(2) "While such inconsistencies are being resolved, the more restrictive restoration time should be used."

The second statement should be clarified or deleted. The TS should be followed strictly unless there is confirmation of non-conservatism. The TS, particularly the STS, has received rigorous review by the utilities and the NRC. A suspected inconsistency should not be enough to force an informal modification of the TS.

Resolution: Agree. The paragraph was deleted in its entirety.

8. The 8th paragraph provides inappropriate guidance leading to action beyond what is required by the TS. We recommend the paragraph be reworded to say "Therefore, upon declaring a support or supported system inoperable in one train, the required actions in the TS should be implemented."

Resolution: Agree. The paragraph was changed.

(PGN-8)

Eighth paragraph. "Therefore, upon declaring a support or supported system inoperable in one train, the licensee should verify the operability of corresponding independent support or supported systems and all other associated support systems in the opposite train(s)."

Guidance requiring action beyond what is required by TS is inappropriate. It should read, "Therefore, upon declaring a support or supported system inoperable in one train, the required actions in the TS should be implemented. "

Resolution: Agree. The paragraph was changed.

C.10 Piping and Pipe Support Requirements

No comments

C.11 Flaw Evaluation . **Resolution: DEFER for disposition by others.**

(NEI)

1. This section states that discovery of a through-wall flaw results in system inoperability. Previous NRC guidance has been that the component with the through-wall flaw is inoperable. In most instances the result is the same, but it is possible that a component of a system could be inoperable and the system itself not be rendered inoperable by the inoperability of the component.

2. Additional dialogue is needed to identify and define the key terminology in this section. We have several questions about the terminology that would be best explored in a **public meeting**.

Resolution: Defer for disposition by others.

3. This section discusses the evaluation of flaws in moderate energy piping systems. In our opinion, in almost every instance of a through-wall flaw in a moderate energy system, the flaw characterization and subsequent flaw evaluation results in continued operation with the flaw

present and a declaration of component/system operability. **A requirement to immediately declare the system (or component) inoperable is too prescriptive.** A reasonable period of time (e.g., 24 hours, consistent with the guidance document) should be allowed for the licensee to conduct a prompt determination of operability for the as-found condition, thereby precluding unnecessary shutdowns and a potential increase in risk.

4. **The requirement for an immediate declaration of inoperability seems inconsistent with Section 5.4 (Reasonable Expectation), Section 5.7 (Presumption of Operability), and in the Note in Section A.1 (Operability During TS Surveillances).** These other sections say that “It is not the intent of surveillance testing or other similar program requirements to cause unwarranted plant shutdowns or to unnecessarily challenge other systems.”

5. **This section states that any system under the jurisdiction of the ASME code is inoperable if it has a through-wall flaw.** However, Section C.12 notes that Code Case N-513-1 describes an acceptable method for evaluating through-wall leakage in Class 2 or 3 moderate energy piping. Also, Section C.4 notes that alternate analyses may be used to justify operability. We recommend Section C.11 be updated and rewritten to clarify expectations. It would be an unnecessary burden to declare a system inoperable if fracture mechanics (or other analysis methods approved by the NRC) could be used to demonstrate that a system containing a flaw can perform its specified functions under applicable accident analysis scenarios. The guidance should also note the importance of communicating with the NRC when such conditions arise and the need to promptly submit 10CFR50.55a relief requests when repairs must be deferred or other requirements cannot be met.

Resolution: Defer for disposition by others.

- no code class leakage is allowed by most TS. If it is the condition is indeterminant i.e. inoperable until the condition is appropriately dispositioned as operable.

6. **A system containing a through-wall flaw is not by default inoperable.** This would be inconsistent with the treatment of other systems. For instance if a valve is inoperable, the system may or may not be inoperable depending on the location, safety function, and the specific cause of valve inoperability.

7. **We recommend replacing the word “system” with the word “component”** in the last two sentences of the 1st paragraph.

(Duke-#20)

This section states that any system under the jurisdiction of the ASME code containing a through-wall flaw is inoperable. However, section C.12 notes that Code Case N-513-1 describes an acceptable method for evaluating through-wall leakage in Class 2 or 3 moderate energy piping. Also, section C.4 notes that alternate analyses may be used to justify operability. This section should be rewritten to update the guidance and to clarify expectations. It is overly burdensome on the NRC and licensees to declare a system inoperable if fracture mechanics and/or other analysis methods approved by the NRC can be used to demonstrate that the system containing the flaw can perform its specified functions under the applicable accident analysis scenarios. The guidance should also note the importance of communicating with the NRC when such conditions arise and the need to promptly submit relief requests when repairs activities must be deferred or other requirements cannot be met.

(Constellation Energy)

1. Both of these sections should clearly state that leakage from mechanical joints (gaskets, packing, threaded connections, compression fittings) are not considered Code leakage or flaws even though they still need to be evaluated for structural integrity and the effects of the leakage.

2. Appendix C.12; 2nd paragraph; 2nd sentence - As noted by the NRC, at the August 25, 2004 Workshop, delete the language "...IWA 5250 of Section XI."

C.12 Operational Leakage

(NEI)

✓ 1. The 2nd sentence of the 1st paragraph states that the "LCO shall be entered." **LCOs are not entered or exited.** LCOs are the statement of the lowest functional capability of the SSC. The correct phrase would be, "the applicable Action statements must be followed." **Resolution: revised the phrase, globally as: "the Limiting Condition for Operation (LCO) must be declared not met, and the applicable Condition(s) must be entered." This is consistent with TS Bases discussion.**

2. **Section C.12 discusses items that should be relocated to Section C.11 (Flaw Evaluation).** For example, the 2nd paragraph discusses leakage from Class 1, 2, and 3 components. Only Class 1 component leakage would be Operational Leakage. From the 4th line of the 2nd paragraph through the end of Section C.12, the discussion does not apply to Operational Leakage (a term restricted to the Reactor Coolant System).

Resolution: Open hold for discussion

3. The 3rd paragraph incorrectly implies that leakage from a Class 1 or 2 component pressure boundary renders the component inoperable. **Pressure boundary leakage from a Class 1 component is treated under the Operational Leakage TS.** Leakage from a Class 2 component is evaluated under the definition of operability.

Resolution: Open hold for discussion

✗ 4. We recommend rewording the 2nd sentence of the 3rd paragraph to say "**the LCO must be declared not met**" or "**the applicable TS Action Statements must be followed.**"

Resolution: Disagree, the statement to "declare a component inoperable is appropriate without direction to enter the applicable Condition(s). This is consistent with TS Bases discussion.

✓ 5. The 3rd paragraph states "The Operational Leakage LCO must be promptly entered when it is more likely than not that pressure boundary leakage is occurring." **How can one determine "more likely than not" without positive confirmation of a through-wall, pressure boundary leak?**

Resolution: Agree, deleted the phrase "when it is more likely than not that"

(Duke-#21)

It is not clear if this guidance only concerns the reactor coolant system or other systems containing through-wall leaks. If the guidance is intended to address the

structural integrity of any ASME Code Class 1, 2, or 3 components, then this section should be re-titled and reworded to clarify scope.

Resolution: Open hold for discussion

(Constellation Energy)

X 1. Both of these sections should clearly state that leakage from mechanical joints (gaskets, packing, threaded connections, compression fittings) are not considered Code leakage or flaws even though they still need to be evaluated for structural integrity and the effects of the leakage.

Resolution: Disagree, the comment is outside the scope of the guidance.

2. Appendix C.12; 2nd paragraph; 2nd sentence - As noted by the NRC, at the August 25, 2004 Workshop, **delete the language "...IWA 5250 of Section XI."**

Resolution: Open hold for discussion

C.13 Structural Requirements

(NEI)

X 1. We recommend rewording the 2nd sentence of the 1st paragraph to say "the LCO must be declared not met" or "the applicable TS Action Statements must be followed."

Resolution: Agree, used the following phrase globally, "the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." This is consistent with TS Bases discussion.

✓ 2. The **TS for Structural Integrity and the old specification 4.0.5 were relocated in the STS.** As such, the first paragraph regarding surveillances and inspections in accordance with TS requirements, does not apply. Further, since they are not explicitly in TS, degraded and non-conforming conditions should be addressed in terms of "functionality." Licensees recognize that some Category 1 structures are support systems to TS systems.

Resolution: the reference is useful for the non-ISTTS plants. Therefore, a parenthetical reference to "Structural Integrity and the old specification 4.0.5" was added to the 1st paragraph.

C.14 Use of an Alternative Source Term in Operability Determinations

(NEI)

✓ 1. The guidance in this section is an excellent addition to the guidance document. It is consistent with existing guidance which allows an operability determination to be based on analysis, test, partial test, or experience with operating events, engineering judgment, or a combination of these factors taking into consideration equipment operability requirements.

Resolution: Agree

2 The **use of AST in operability determinations should not be limited to control room habitability.** Followup meetings are needed to develop revised guidance on the general use of AST in operability determinations.

Resolution: Open hold for discussion

(Duke-#22)

✓ The guidance in this section is an excellent addition to the guidance document. Furthermore, it is consistent with existing guidance which allows an operability determination to be based on analysis, test, partial test, experience with operating events, engineering judgment, or a combination of these factors taking into consideration equipment operability requirements. The NRC should consider adding this guidance to section C.4.

Resolution: see NEI#1, above.

(Constellation Energy)

It would be extremely helpful for this section to specifically explain how the general criteria [i.e., (1), (2) or (3)], from Appendix C.4 was applied to the example in Appendix C.14 arriving at the conclusion that alternate source term can be used for operability determinations. This would help facilitate a broader industry understanding of how to apply the criteria in Section C.4 to any method change used for operability determinations. .

Resolution: Open hold for discussion.