Revision to Guidance Formerly Contained in Generic Letter 91-18 (RIS 2005-20)

NEI Operability Determination Workshop
November 9, 2005
Baltimore, MD

Workshop Agenda

- Welcome/Objectives of the Workshop –NEI
- ODP Task Force Objectives - NEI
- Overview of RIS 2005-20 – NRC
- Scope and Examples – NRC/NEI
- Open Discussion of Examples - All
- Conclusion/Wrap up - NEI

Objectives of the Workshop

- Walk through RIS 2005-20 and the IMC
- Discuss terms, definitions, and concepts
- Walk through examples
- Discuss NRC implementation
- Discuss options for industry feedback

ODP Task Force Objectives

- Establish framework to differentiate Operability from Functionality
- Establish key terms & definitions, for example:
  - "Operability Determination" compared to "Functionality Assessment"
  - "Specified Safety Function" as a subset of "Specified Function"
  - "Reasonable Expectation"
  - "Operability Declaration"
- Clarify important concepts, for example:
  - Timing
  - Role of the Corrective Action Program (or equivalent)
  - Role PRA
  - Treatment of compensatory measures
  - Treatment of "methods of evaluation"
  - Documentation

NRC Team

- HQ
  - TSB: Carl Schulten, Tom Boyce, Nancy Salgado
  - DLPM: Bill Reckley, Harold Chernoff
- Region I – Jim Trapp
- Region II – Randy Musser
- Region III – Stephen Burton
- Region IV – Charles Stancil

Overview of RIS 2005-20

IMC Part 9900
Operability Determination Process for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety

- Changes & Clarifications
- Communications
- Going Forward
- Overview of ODP Processes

Background

- NRC public workshop - 8/03
- Draft revision published in FRN - 8/2/04
  - Consolidate/update/improve IMC 9900 guidance
  - Consistency with 10 CFR 50.59 and M-Rule
  - Changes/clarifications from operating experience, public workshop input, and STS
- NRC public workshop - 8/25/04

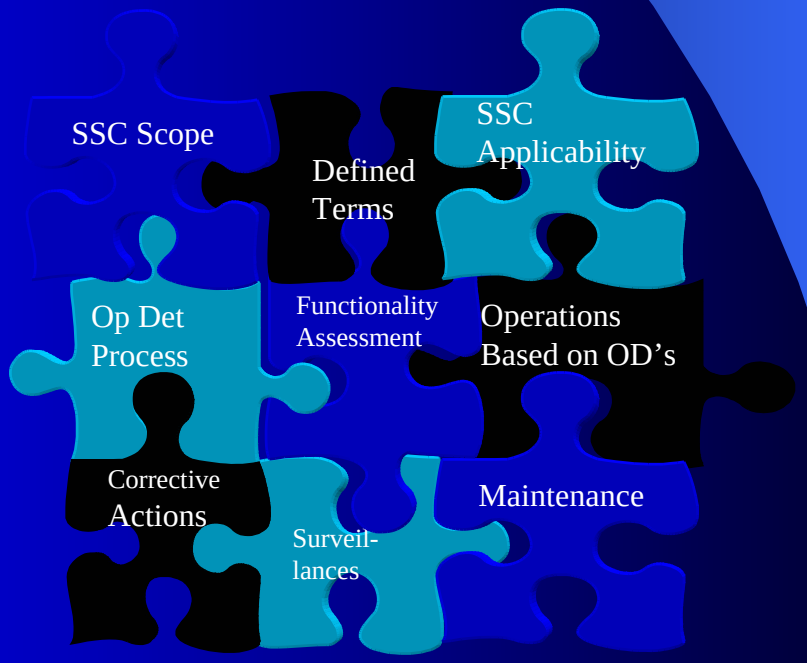
Background (continued)

- Public comment period closed - 10/2/04
- Public Meetings with NEI ODPTF- Feb/05, April/05, and May/05
- NRC Region Review July – August
- RIS 2005-20 issued September 26, 2005

Changes and Clarifications

- Rewritten to be Clearer and more Process Oriented
- Revised to Reflect Ongoing Regulatory Changes
- Clarified Selected Issues Based on Industry Feedback

"Inspector guidance," but also industry guidance
(Expectations vs. Enforceability)



Rewritten to be more Process Oriented

- RIS vice revision to GL 91-18
- GL 91-18 endorsed two IMC 9900 documents
  - Operable/Operability
  - Resolution of Degraded and Nonconforming Conditions
- The ODP is more process oriented

Rewritten to be Clearer

- **Standardized terminology**
  - "Operability" and "functionality"
  - "Immediate" and "prompt" operability calls
  - "Completion time" vs. "Allowed outage time"
  - Use of compensatory measures to restore operability
  - Licensed operators make operability calls
  - Added component reliability

Revised to Reflect Ongoing Regulatory Changes

- Implemented Reactor Oversight Program
  - Maintenance Rule Unavailability vs. Performance Indicator Safety System Unavailability
- Consistency with 10 CFR 50.59
  - Update language
  - Added Compensatory Measures discussion
  - Added references
- Consistency with 10 CFR 50.65
  - Added RIS Appendix B, “Maintenance”
- Implemented revised NOED process
  - JCO vs. Enforcement Discretion

Clarified Selected Issues Based on Industry Feedback

Operability Determination Process

- Discuss "TS Operability" & "SSC Functionality" Separately

Definitions

- Functionality Definition
  - Clarify that non-TS SSCs be handled by the corrective action program and not the operability determination process

Clarified Selected Issues Based on Industry Feedback

Regulations

- Scope/applicability
  - Generalize the scope of the guidance on "safety-related SSC" (§50.2 and other regulations vice §50.49)
- CLB Definition
  - The definition of Current Licensing Basis is from 10CFR54, license renewal, which is not applicable to all licensees

Clarified Selected Issues Based on Industry Feedback

Interface with ODP

- Identification of Degraded/Non-conforming Condition (DNC)
  - SSCs that do not fall within the scope of "operability" should not be included in processes indicating a potential DNC
- Operability Determinations
  - Soften strict time requirements (<24 hours) on prompt operability determinations limits

Communications Plan

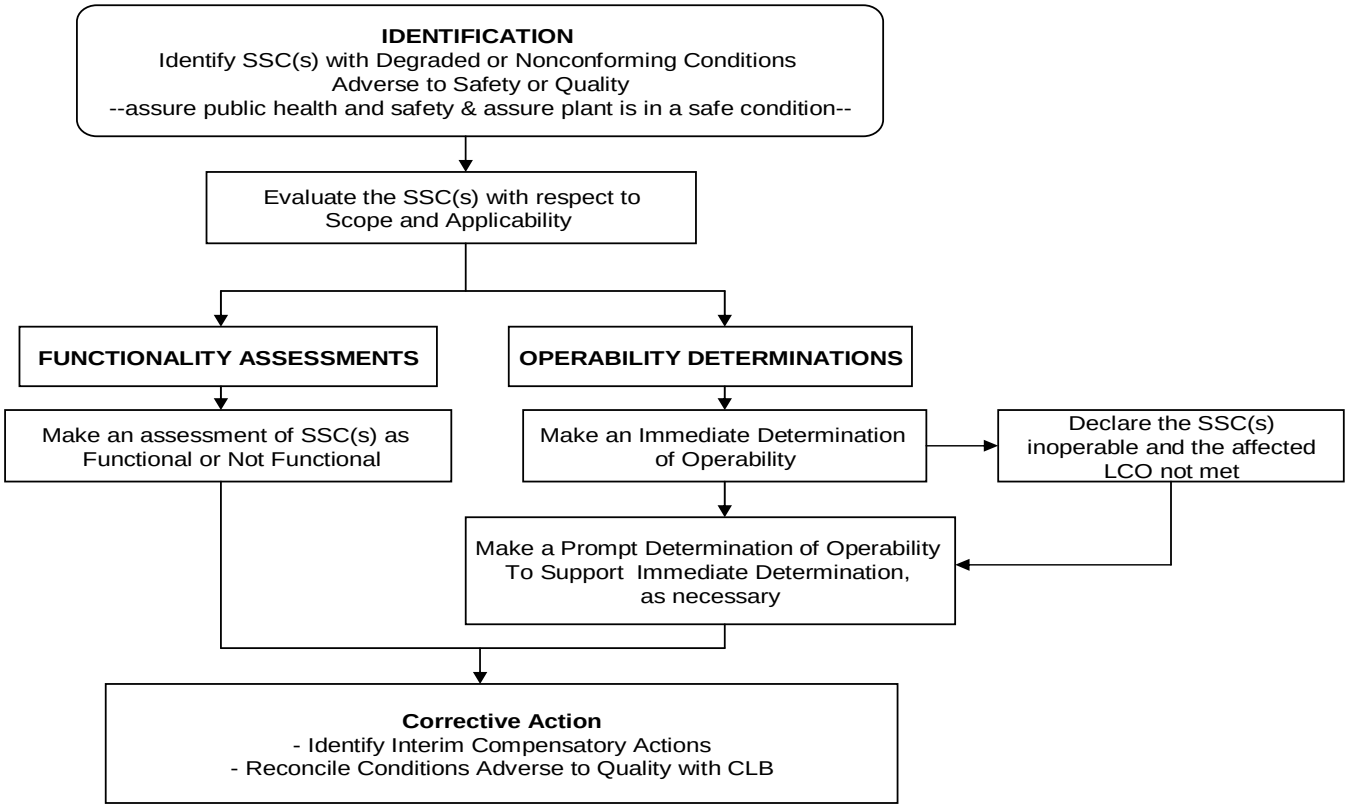
- NRC Exec Team/ Leadership Team Brief
  - Nov. 10
- Region Inspectors - Nov & Dec
- NRR Project Managers – November
- Developing On-line Training
- Considering a Website for Notable Operability Calls
- Inspector Qualification Program

Going Forward

- Input from this Forum
- Changes to IMC 9900 Technical Guidance
  - Further changes to 9900 likely via RIS

Overview of ODP Processes

Operability Determination Process Flowchart



Overview of ODP Processes

Documenting Immediate & Prompt Determinations

- Added Documentation Discussion
- Immediate and Prompt Documentation
  - Different Expectations
    - Immediate
      - Simple documentation
      - Explain basis for “reasonable expectation of operability”
    - Prompt – more detailed
- Criterion for documenting engineering judgment
- An “expert” in the technical discipline
- Examples

Scope and Examples

Gray Area – Operability Determination (OD) vs. Functionality Assessment (FA)

- A plant identifies that the SBO environment of a TS SSC will exceed the qualification temperature for the SSC. However, engineering confirms that the SSC SBO qualification temperature exceeds the design bases qualification temperature of the SSC established initially during the original plant licensing. Is the SSC operable or inoperable.
  - The SSC is operable because it can perform its design basis "specified safety function." However, the SSC SBO function cannot be met; therefore, the SSC is non-functional since the plant does not comply with the SBO rule. The non-functional SSC condition must be entered into the plant Corrective Action Program (or equivalent). The SSC SBO function must be restored in a timely manner, commensurate with the safety importance of the non-compliance of the SBO rule.

Scope and Examples

Gray Area – OD vs. FA

Operability versus Functionality

- A plant has only the LPCI injection function of the RHR system in the TS.
  - The plant has discovered that the disc has separated from the stem on the RHR injection isolation valve and has closed the injection flow path. This disables only the RHR function.
- Is an OD or FA required?
  - The affected function is not a Specified Safety Function
    - **However, a FA is required**

Reportability Considerations

- The final reporting decision for this condition would benefit from a FA.
- 10 CFR 50.72(b)(3)(v) is an 8-hour reporting requirement:
  - …Any event or condition that at the time of discovery could have prevented the fulfillment of the safety function of structures or systems that are needed to: …remove residual heat … .

Scope and Examples

Gray Area – OD vs. FA

- A plant identifies a potential internal flooding concern which can affect TS and non-TS equipment. The USAR is not specific on the design/licensing basis for flooding.

- Is an operability evaluation required for the safety related equipment?
  - The answer depends on the relationship between the flooding event and the events/accidents that the TS are intended to address:
    - If the flooding impacts a TS SSC, an OD is required.
    - If the flooding does not impact a TS SSC, a FA is required (the more typical scenario), the concern should be addressed by the Corrective Action Program (or equivalent).

Scope and Examples

Gray Area – OD vs. FA

- A plant has an AFW system (or RCIC for BWR). The steam isolation valve fails the stroke time test only in the open direction. A review of the UFSAR indicates that the "safe" function is for the valve to close and isolate the system upon a steam break downstream of the valve. The valve is declared operable because it can perform its safety function as defined in the UFSAR.
- However, a NUREG 0737 commitment (post TMI action item) exists for this valve because of a concern about re-opening the valve after inadvertent or accidental operator closure. The licensee had agreed to this requirement and so committed in their 0737 response. The commitment made the reopening of the valve a safety-related, design-basis function (**i.e., a specified safety function).**
- Does the commitment, albeit not described in the UFSAR, mean that that the operability evaluation is incorrect.
  - Yes
  - The licensee should refer to Administrative Letter 98-10 to resolve the discrepancy between the TS and the commitment.

Scope and Examples

Gray Area – OD vs. FA

- A plant identifies a problem with a calculation, indicating that a TS may be non-conservative. For example a review of AST calculations identifies an error in the "shine" assumptions such that the location of a TS SSC could be inaccessible following an accident. Is an operability evaluation required for the SSC?
  - Yes
- Is an operability evaluation required if the SSC is not in Section 3 of the TS (LCO/SR), but is in the Technical Requirements Manual (or equivalent)?
  - No, unless the SSCs provide a required support function for another SSC which is in the TS.