

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, D.C. 20555-0001

September 30, 2002

**NRC REGULATORY ISSUE SUMMARY 2002-14, SUPPLEMENT 1  
PROPOSED CHANGES TO THE SAFETY SYSTEM UNAVAILABILITY  
PERFORMANCE INDICATORS**

**ADDRESSEES**

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

**INTENT**

The U. S. Nuclear Regulatory Commission (NRC) is issuing this supplement to Regulatory Issue Summary (RIS) 2002-14 to provide to the addressees revised versions of the three attachments to the RIS.

**BACKGROUND**

Regulatory Issue Summary 2002-14 informed addressees that the NRC was starting a 6-month pilot program on September 1, 2002, to evaluate changes to the safety system unavailability (SSU) performance indicators (PIs), and that the pilot program would be assessed midway through the test period to determine if more than six months were needed to obtain meaningful results. The RIS and its three attachments provided guidance to participating addressees for submitting PI data to the NRC and on the program success criteria.

Addressee participation in the pilot program is voluntary and participants were asked to conform to the guidance in the RIS for the voluntary submission of PI data. Addressees were also informed that updated guidance would be provided in the form of revisions to the attachments to the RIS, namely, Attachment 1, an excerpt from Draft NEI 99-02, Rev. 0, "Regulatory Assessment Performance Indicator Guideline," Section 2.2, "Mitigating System Performance Index," and Attachment 2, Draft NEI 99-02, Rev. 0, Appendix F, "Methodologies For Computing the Unavailability Index, the Unreliability Index and Determining Performance Index Validity."

**SUMMARY OF ISSUE**

Since the issuance of RIS 2002-14 on August 28, 2002, Attachments 1 and 2 have been updated and Attachment 3 has been revised. The revised attachments are attached to this RIS supplement.

**ML022740008**

## **BACKFIT DISCUSSION**

This RIS supplement requires no action or written response. Therefore, the staff did not perform a backfit analysis.

## **FEDERAL REGISTER NOTIFICATION**

A notice of opportunity for public comment was not published in the *Federal Register* because this RIS supplement is informational.

## **PAPERWORK REDUCTION ACT STATEMENT**

This RIS supplement does not request any information collections.

If there are any questions about this matter, please contact one of the persons listed below.

***/Original signed by: TReis/***

William D. Beckner, Program Director  
Operating Reactor Improvements program  
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### Attachments:

1. Draft NEI 99-02, Rev. 0, "Regulatory Assessment Performance Indicator Guideline," Section 2.2, "Mitigating System Performance Index"
2. Draft NEI 99-02, Rev. 0, "Regulatory Assessment Performance Indicator Guideline," Appendix F, "Methodologies For Computing the Unavailability Index, the Unreliability Index, and Determining Performance Index Validity"
3. Mitigating System Performance Index Pilot Program Success Criteria
4. List of Recently Issued NRC Regulatory Issue Summaries

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\*See previous concurrence

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| DATE   | 09/30/2002   | 09/30/2002   | 09/30/2002   |              |  |

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## Mitigating System Performance Index Pilot Program Success Criteria

The Mitigating System Performance Index (MSPI) success criteria listed below will be met if there is general agreement among internal and external stakeholders that the criteria have been met.

- a. The occurrence of a single failure of an MSPI monitored component by itself, absent any other failures or unavailabilities, should rarely exceed the green/white MSPI threshold as measured from the baseline value. The term "rare" is defined as minimizing the inconsistencies across plants, within plants, and within systems such that there is no undue burden on resources, and the objective of having consistent publicly displayed results can be achieved.
- b. False positive and false negative rates can be established for the chosen statistical method, and instances where the MSPI cannot meet the criteria are rare.
- c. Instances where the results from the MSPI calculational methodology are not consistent with the SPAR-3 models are rare and the differences are explainable.
- d. The MSPI pilot plant participants can identify and compile the risk significant functions for the monitored systems in a readily inspectable format and can compile a set of predetermined success criteria for those risk significant functions.
- e. The active components in the monitored systems are appropriate for inclusion in the MSPI and are a manageable number of components under the MSPI.
- f. By the end of the pilot, MSPI data can be accurately reported and quality checked.
- g. By the end of the pilot program, inspection procedures and MSPI pilot guidelines are sufficiently detailed to minimize MSPI Questions and NRC feedback forms.
- h. MSPI Questions and NRC feedback do not reveal any unresolvable issues.
- i. Data collection inconsistencies between the maintenance rule and the MSPI can be reconciled in order to eliminate or significantly reduce separate reporting.
- j. Differences between the linear approximation models generated by licensee probabilistic risk assessments and those generated by the NRC SPAR-3 models can be reconciled.
- k. The MSPI produces no new unintended consequences that cannot be resolved.

Upon the successful meeting of the success criteria, with a determination that the MSPI pilot is a valid and appropriate means of measuring risk for the monitored systems, the MSPI will suffice as the measure of assessment and not the significance determination process for single failures of the active components within the scope of the MSPI. Any significant problems will be resolved before full MSPI implementation.

LIST OF RECENTLY ISSUED  
 NRC REGULATORY ISSUE SUMMARIES

| Regulatory Issue Summary No. | Subject   | Date of Issuance | Issued to  |
|------------------------------|---|------------------|--|
| 2002-17                      | Guidance on Performing Military Service Verification  | 09/19/2002       | All holders of operating licenses for nuclear power reactors.  |
| 2002-16                      | Current Incident Response Issues  | 09/13/2002       | All holders of operating licenses for nuclear power plants.  |
| 2002-15                      | NRC Approval of Commercial Data Encryption Systems for the Electronic Transmission of Safeguards Information                                | 08/28/2002       | All authorized recipients and holders of sensitive unclassified safeguards information (SGI).  |
| 2002-14                      | Proposed Changes to the Safety System Unavailability Performance Indicators   | 08/28/2002       | All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel. |
| 2002-13                      | Confirmation of Employment Eligibility  | 08/27/2002       | All holders of operating licenses for nuclear power reactors.  |
| 2002-12                      | NRC Threat Advisory and Protective Measures System  | Various          | Various  |
| 2002-11                      | Requalification Program Test Results for Okonite Okolon Single-Conductor Bonded-Jacket Cable (Followup to Regulatory Issue Summary 2000-25) | 08/09/2002       | All holders operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.    |
| 2002-10                      | Revision of the Skin Dose Limit in 10 CFR Part 20   | 07/09/2002       | All U.S. Nuclear Regulatory Commission material licensees.   |

**Note:** NRC generic communications may be received in electronic format shortly after they are issued by subscribing to the NRC listserver as follows:

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