



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 17 1992

MEMORANDUM FOR: Gary G. Zech, Chief
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Division of Licensee Performance
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FROM: Richard P. Correia, NRC Coordinator
for NRC/NUMARC Maintenance Interactions
Performance and Quality Evaluation Branch
Division of Licensee Performance
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SUBJECT: MEETING SUMMARY -- DECEMBER 3-4, 1992 NRC/NUMARC PUBLIC
MEETING ON THE STATUS OF THE VERIFICATION AND VALIDATION OF
THE INDUSTRY GUIDELINE FOR THE IMPLEMENTATION OF THE
MAINTENANCE RULE (10 CFR 50.65)

The subject meeting was held at the NRC Headquarters Offices. The list of attendees is provided as enclosure 1.

The purpose of the meeting was to discuss the results to date of the NUMARC/industry effort to verify and validate the industry guideline to implement the requirements of the Maintenance Rule (10 CFR 50.65). During the meeting, NUMARC representatives presented the preliminary results from the verification and validation (V&V) process which could effect the contents of the NUMARC guideline, 93-01, revision 2A (dated July 1992). In summary, the items discussed were as follows:

- The two risk significance determination methods and the accompanying narrative regarding the use of PRA as a tool to determine risk significant structures, systems and components (SSC) should be embellished to: add one new method, clarify the two existing methods, and highlight that utilities that choose this PRA based approach should use all three methods.
- SSC failure rates or unavailability due to failures should be included in performance criteria by which SSC performance will be monitored and evaluated.
- The guideline should be changed to clarify the use of the word "hypothetical" as it relates to SSC failures that cause reactor scrams or actuations of a safety-related system.
- The guideline implementation logic diagram (figure 1) should be modified to include a step which requires the establishment of performance criteria for non-risk significant stand-by SSCs.
- Additional guidance should be included to state that utilities must demonstrate preventative maintenance effectiveness for SSCs placed under provision (a)(2) of the rule.

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MAINTENANCE Rule

- The guideline should clarify to what extent SSCs that are under the direct control of the utility should be considered for inclusion under the scope of the maintenance rule. The NRC working group proposed that any SSCs that are located on the owner controlled area, regardless of what organization the utility may have established to maintain them, should be considered for inclusion within the scope of the maintenance rule. For example, the equipment that feeds the offsite electrical power circuits and that connects the two physically independent offsite electrical power circuits to the onsite electrical distribution system (required by 10 CFR 50, Appendix A, GDC 17) should be considered for inclusion within the scope of the maintenance rule.

- The guideline should be clarified to state at what frequency, repetitive maintenance preventable functional failures of non-risk significant, normally operating SSCs should be evaluated for goal setting and monitoring under the provisions of (a)(1) of the maintenance rule. Guidance should be provided for utilities to aggregate SSC failures of plant level performance criteria over a reasonable time period after corrective actions have been determined and implemented to perform evaluations of failures for inclusion under (a)(1) of the rule.

- More examples should be provided in the guidelines for SSCs used in EOPs that would not fall under the scope of the rule because they would be used for equipment protection and not accident mitigation reasons.

Additionally, the NRC and NUMARC representatives discussed some of the more significant items the participating utilities have identified during the V&V program.

- Similar NSSS plants will not necessarily have similar SSCs or similarly designated SSCs that fall under the scope of the rule. Utility and AE design preferences/requirements are the main reason for these differences.

- Plant specific PRA insights will most likely be used by utility expert panels to determine risk significant SSCs.

- Benefits can be realized by evaluating maintenance effectiveness at the system/train level rather than at component level. Actual system/train performance should be compared to those assumed in the plant PRA.

- Equipment failure cause determinations should be improved because some past evaluations of maintenance problems were incomplete.

- Existing plant data systems generally do not adequately support utility needs for the implementation of the rule. Generally, much of the data is collected but is not integrated into a single data base to evaluate maintenance effectiveness.

Gary G. Zech

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• The method currently used to assess overall plant safety prior to taking equipment out-of-service for preventative maintenance may need refinement at some facilities. Currently, some utilities rely on licensed operator experience and technical specifications as a basis for taking equipment out-of-service for maintenance.

Original signed by:

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DATE	2/10/92	/ /92	/ /92	/ /92	/ /92

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Document Name: NUMARC27.VV

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Verification and Validation
December 3-4, 1992

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