



December 30, 1996

AEP:NRC:1238E
10 CFR 2.201

Docket Nos.: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2
NRC INSPECTION REPORTS NO. 50-315/96009(DRS)
AND 50-316/96009(DRS) REPLY TO NOTICE OF VIOLATIONS

This letter is in response to a letter from G. E. Grant, dated November 14, 1996, that forwarded a notice of two violations and one unresolved item to Indiana Michigan Power Company. The violations were identified during an inspection of the implementation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." The two violations were the failure to set adequate reliability performance criteria, commensurate with safety, for systems, structures, and components of high safety significance, and the failure to establish an appropriate basis for the instituted unavailability goal of the containment hydrogen control system. The unresolved item was identified regarding the possibility that problems with certain systems, structures, and components could be masked by their functional failure definitions.

Our response was due to you on December 14, 1996; however, we requested an extension to January 2, 1997 on November 25, 1996, which was granted by Mr. M. Farber, of Region III. An additional extension to January 17, 1997 was granted by Mr. W. Kropp, of Region III. However, this additional time was not needed as the letter was completed prior to the expiration of the first extension.

Our reply to the violations and our response to the unresolved item are provided in the attachment to this letter. The reply does not contain any personal privacy, proprietary, or safeguards information.

Sincerely,

Handwritten signature of E. E. Fitzpatrick.

E. E. Fitzpatrick
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 30th DAY OF December 1996

Handwritten signature of Jan Watson.

Notary Public

My Commission Expires: _____

jmb

Attachment

JAN WATSON
NOTARY PUBLIC, BERRIEN COUNTY, MI
MY COMMISSION EXPIRES FEB. 10, 1999

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PDR ADOCK 05000315
G PDR

U. S. Nuclear Regulatory Commission
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cc: A. A. Blind
A. B. Beach
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Padgett

ATTACHMENT TO AEP:NRC:1238E

REPLY TO NOTICE OF VIOLATION:
NRC INSPECTION REPORT NOS. 50-315/96009 (DRS)
AND 50-316/96009 (DRS)

During an NRC inspection conducted September 9 through September 13, 1996, on the implementation of the Maintenance Rule, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," (NUREG-1600) the violations and the Donald C. Cook Nuclear Plant responses are provided below. Additionally, we were requested to respond to an unresolved item. Our response to this item is also provided below.

NRC Violation I

"10 CFR 50.65(a)(1) requires, in part, that each holder of an operating license under 50.21(b) or 50.22 shall monitor the performance or condition of structures, systems, or components against licensee-established goals. Such goals shall be established commensurate with safety.

Contrary to the above, as of September 9, 1996, the licensee failed to establish appropriate reliability goals or performance criteria commensurate with safety for 18 high safety significant structures, systems, or components.

This is a Severity Level IV violation."

Response to NRC Violation I

1. Admission or Denial of the Alleged Violation

Indiana Michigan Power Company admits to the violation as cited in the NRC notice of violation.

2. Reason for the Violation

The "maintenance rule" is the first performance based rule, and, as a result, acceptable methods to achieve compliance with the rule were not completely understood between the industry and the NRC. We implemented the rule in accordance with industry guidance that was thought to be acceptable to the NRC. We now understand that a more exact correlation between reliability performance criteria and the PRA is expected.

3. Corrective Actions Taken and Results Achieved

A review of all recent NRC and industry guidance on the subject was performed. The maintenance rule coordinator attended the recent NEI/NRC workshop on the maintenance rule baseline inspections (MRBIs) wherein this industry issue was discussed in detail. Additionally, discussions were held with other licensees who have had maintenance rule baseline inspections performed. As a result, an understanding was gained of the NRC expectations regarding the linking of reliability to the PRA/IPE/IPEEE.

In order to determine reliability goal and performance criteria commensurate with safety, a plan has been developed to determine the link between counting functional failures per unit time and the reliability assumptions used in the PRA for all risk significant SSCs at Cook Nuclear Plant. For normally operating SSCs, this will require determining the ratio of allowed functional failures to a specified number of

hours the SSC is operated during a given time period. For standby SSCs, the number of demands, either actual or estimated, placed on the SSC during a given time period will be used to relate to the PRA reliability inputs.

4. Corrective Actions Taken to Avoid Further Violations

As stated above, our program was developed in a manner consistent with then current industry guidance for compliance.

We continue to maintain initiatives to stay abreast of the expectations for maintenance rule compliance, including:

membership in the Winston & Strawn Maintenance Rule Inspection Clearinghouse;

maintaining a presence at industry meetings (NEI);

active networking with industry peers; and

monitoring results of the MRBIs.

5. Date When Full Compliance Will Be Achieved

The linking of reliability to the PRA/IPE/IPEEE, and associated procedure changes, will be completed by August 29, 1997. This time is needed to ensure we develop a process that properly considers the complexity of the task.

NRC Violation II

"10 CFR 50.65, 'Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants' requires, in part, structures, systems, or components be monitored against licensee-established goals as described in 50.65(a)(1) unless it has been demonstrated that the performance or condition of a system, structure, or component is being effectively controlled through the performance of appropriate preventive maintenance as described in 50.65(a)(2).

Contrary to the above, the licensee failed to establish an appropriate basis for the instituted unavailability goal chosen to demonstrate that the performance or condition of the containment hydrogen control system was being effectively controlled through adequate preventive maintenance.

This is a Severity Level IV violation."

Response to NRC Violation II

1. Admission or Denial of the Alleged Violation

Indiana Michigan Power Company admits to the violation as cited in the NRC notice of violation.

2. Reason for the Violation

Prior to the inspection, a condition report was written for the high unavailability of the containment hydrogen control system (CHCS) SSCs. That condition report resulted

in the establishment of (a)(1) goals for each of the four trains of post accident containment hydrogen monitoring system (PACHMS), a constituent system of the CHCS SSC, of 776 hours per year. This was based on the premise that annually there would be 56 hours of preventive maintenance and one failure per train. The failure was assumed to cause an unavailability period equal to the Technical Specification 3.6.4.1 Allowable Outage Time, thirty days. Thus, a limit of 56 hrs + (24 hrs X 30 days) = 776 hrs was developed. There was insufficient analysis of past PACHMS unavailability; thus, the basis for the goal was not rigorously established.

This occurred because procedure EHI-5035, "Maintenance Rule Program Administration," did not provide adequate guidance regarding goal setting for (a)(1) SSCs. Specifically, it did not:

direct that the performance history be considered; and

contain a caution there may be no correlation between LCO durations and appropriate performance expectations.

The specific needs of the maintenance rule require this supplemental guidance be included in the procedure in addition to our generic corrective action program guidance.

3. Corrective Actions Taken and Results Achieved

The per train PACHMS (a)(1) unavailability goal was reduced to 296 hours per year on December 2, 1996. This value includes allowances for calibration, repair time resulting from one failure per year, and one day of planned corrective maintenance per year.

The goal bases for the other systems classified as (a)(1) (post accident sampling and auxiliary feedwater) were re-reviewed. It was concluded that investigations and established goals were adequate for these systems.

4. Corrective Actions Taken to Avoid Further Violations

Additional guidance will be added by January 31, 1997, to Procedure EHI-5035, "Maintenance Rule Program Administration," on the conduct of maintenance rule condition report investigations. This guidance will correct the deficiencies noted in "Reasons for the Violation" above.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 2, 1996, when the unavailability goal was reduced to 296 hours.

Unresolved Item

In addition to the above two violations, the notice of violation contained the following unresolved item which is addressed below.

UNR 50-315/96009-06 (DRS) and UNR 50-316/96009-06 (DRS)

The unresolved item concerned the possibility problems with certain SSCs could be masked by our functional failure (FF) definitions. Specifically,

"Reviewing CRs and work orders for the air system, the team found a number of instances of what appeared to be FFs as defined by the licensee's program."

"Based on the team's findings, the licensee agreed to reevaluate the FF definition for the air dryers, considering the active system components and the effects on the SSCs."

"In addition to examining the relevant parts of the maintenance rule program, the team reviewed CRs and work orders for the vital batteries and discovered an occurrence where an operator, in preparing for a test, opened an incorrect disconnect, deenergizing a bus. While this was properly classified as an FF, its relationship to overall maintenance was not recognized. Consequently, this occurrence was not appropriately classified as an MPFF. The FF definition for the batteries was based on entry into Technical Specification 3.8.2.3, which requires a DC bus, a 250 VDC battery, and a full capacity charger. Since each battery had two chargers, a charger failure would not result in an LCO entry; repeated charger failures would not trigger an FF nor be tracked under the maintenance rule."

"Based on the team's findings, the licensee agreed to reevaluate the battery charger failures and the appropriate classification of FFs."

Actions Taken

Relative to the air dryers, their maintenance rule function is to act as a path for compressed air, the motive force, to controls and valves. Our failure definition was narrowly worded as if the dryers were merely pipes. That is, it listed loss of pressure boundary as the sole example of a failure. We have since changed that definition to one which better reflects the complexity of the dryers and possible failures that could impact the delivery of compressed air. Examples include failures such as plugged filters and failed desiccant bed screens. These failures would have been recognized as functional failures even before the rewording of the failure definition.

For the battery chargers, we now consider a loss of an individual battery charger as being a functional failure, and this clarification has been added to the database. A re-review of battery train condition reports written in the last three years was performed using this new guidance. The unit 2 N train was identified as having three functional failures during this period. However, only two of the functional failures were categorized as maintenance preventable. Therefore, the SSC did not exceed the allowable limit of two functional failures.

For other systems not mentioned in the inspection report, we will perform a review of functional failure definitions to determine

whether masking of equipment failures is occurring. This will be completed by February 28, 1997.

Regarding the case where the operator opened an incorrect disconnect in conducting a lineup for a battery drawdown test, we have reevaluated this incident and do not consider this a maintenance preventable functional failure (MPFF). This is based on the examples given in Section 9.4.5 of NUMARC 93-01. One example provides that failures due to operational errors are not considered MPFFs. In addition, Item 31 of Section 12 of Appendix C (Questions and Answers from Workshop) of the proceedings from the 1993 NUMARC Industry Workshops on Implementation of the Maintenance Rule states that operational activities (i.e., tag-outs) are not maintenance related and therefore would not create an MPFF. The NRC was present at these workshops, and later accepted these Q&As as guidance. Based on this NUMARC guidance, our program makes the determination of MPFF on a case-by-case basis based on which workgroup performs the action. If the action is something only operators would perform, then that inappropriate action would not be considered a MPFF. However, if an operator inappropriately performs an action that maintenance personnel also normally perform (such as topping off a lube oil reservoir) then that would be a MPFF. Performing lineups for battery drawdown tests is something that only operators normally perform. Therefore, we do not consider this a MPFF.