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SUBJECT: Responds to NRC ltr re violations noted in insp repts
 50-315/96-15 & 50-316/96-15. Corrective actions: operations
 standing order, OSO.125, Rev 1 was implemented directing
 operators to perform breaker alignment within 1 h after EDG.

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Indiana Michigan
Power Company
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Buchanan, MI 49107 1395



March 26, 1997

AEP:NRC:1238I
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. 50-315/96015 (DRP)
AND 50-316/96015 (DRP) REPLY TO NOTICE OF VIOLATION

This letter is in response to a letter from J. L. Caldwell, dated February 19, 1997, that forwarded a notice of violation to Indiana Michigan Power Company. The notice of violation contained two violations of NRC requirements identified during an NRC inspection conducted from November 24, 1996, through January 5, 1997. The violations are associated with a failure to perform a surveillance requirement in accordance with the technical specifications, and a failure to adequately control the design of safety related equipment such that a non-safety-related pipe was installed in an application where safety grade pipe was necessary. The letter also included a request for information on corrective actions taken in response to a non-cited violation associated with a failure to properly record test data.

On March 4, 1997, Mr. Bruce Burgess granted an additional 2 weeks to reply to the subject violations due to the NRC recategorizing the second violation from potentially non-cited to cited. The new due date for this response is April 4, 1997.

Our reply to the violations is provided in attachment 1 to this letter. Attachment 2 provides the corrective actions taken in response to the non-cited violation.

Sincerely,

E. E. Fitzpatrick
Vice President

vlb

Attachments

c: A. A. Blind
A. B. Beach
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Padgett

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 26th DAY OF March, 1997

Notary Public

My Commission Expires 2001

JANICE M. BICKERS
Notary Public, Berrien County, MI
My Commission Expires Feb. 16, 2001

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Q PDR



IEO111

ATTACHMENT 1 TO AEP:NRC:1238I

REPLY TO NOTICE OF VIOLATION:
NRC INSPECTION REPORT NOS. 50-315/96015 (DRP)
AND 50-316/96015 (DRP)



"During an NRC inspection conducted from November 24, 1996 to January 5, 1997, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below." Our response follows.

NRC Violation I

"Technical Specification 3.8.1.1, Action Statements a and b require, in part, that with an offsite circuit or a diesel generator of the required A.C. electrical power sources inoperable, demonstrate the operability of the remaining A.C. offsite sources by performing a breaker alignment as required by surveillance requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

Contrary to the above:

- A. On May 9, 1996, at 2020, the Unit 2 AB emergency diesel Generator, a required A. C. power source, was rendered inoperable for routine testing; however, the required breaker alignment was not performed within one hour.
- B. On June 26, 1996, at 0356, a required offsite A.C. power source was rendered inoperable when the 12 AB Bus supply breaker was opened for maintenance; however, the required breaker alignment was not performed within one hour.
- C. On August 13, 1996, at 0500, the Unit 2 CD Emergency Diesel Generator, a required A.C. power source, was declared inoperable; however, the required breaker alignment was not performed within one hour.
- D. On August 16, 1996, at 1032, the Unit 2 CD Emergency Diesel Generator, a required A.C. power source, was declared inoperable; however, the required breaker alignment was not performed within one hour.
- E. On August 18, 1996, at 1030, the Unit 1 CD Emergency Diesel Generator, a required A.C. power source, was declared inoperable; however, the required breaker alignment was not performed within one hour.
- F. On August 24, 1996, at 0520, a required offsite A.C. power source was rendered inoperable when the 12 AB Bus supply breaker was opened for maintenance; however, the required breaker alignment was not performed within one hour.
- G. On November 24, 1996, at 1855, required A.C. power source was rendered inoperable when the 12 EP bus was removed from service; however, the required breaker alignment was not performed within one hour.
- H. On November 25, 1996, at 0320, the Unit 1 CD Emergency Diesel Generator, a required A.C. power source, was rendered inoperable when it was removed from maintenance; however, the required breaker alignment was not performed within one hour.

This is a Severity Level IV violation (Supplement 1). (50-315/96015-01 (DRS); 50-316/96015-01 (DRS))."



Response to NRC Violation I1. 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 cause of this violation is an incorrect interpretation of what was required to satisfy the LCO action statement during pre-planned activities. Personnel incorrectly interpreted the requirement to perform breaker alignment "within one hour" of the inoperability as meaning the breaker alignments could be done within one hour prior to the emergency diesel generator (EDG) becoming inoperable.

A review of our history concerning breaker alignment indicated the practice of performing the breaker alignment prior to removing equipment from service began around 1991. At that time, a revision to the operations procedure governing this process occurred that greatly expanded the review performed for verifying breaker configuration. During the same time frame, a control room task force had been established to address failures to complete the breaker alignment in a timely manner. While no direct tie could be established, we believe the practice of performing the breaker alignment prior to, or in parallel with, removing an EDG from service occurred at this time.

The performance of the breaker alignment, prior to or in parallel with EDG removal, was considered consistent with the intent of action statement "a" for pre-planned activities. Performance of the breaker alignment prior to removing the EDG from service was thought to be a good practice because it provided indication of correct breaker alignment prior to EDG inoperability.

3. Corrective Actions Taken and Results Achieved

An operations standing order (OSO), OSO.125, revision 1, was implemented directing the operators to perform the breaker alignment within one hour after an EDG is declared inoperable regardless of the circumstances.

The EDG surveillance procedures, in the operations 4030.STP.027 series, were revised to sequence the verification of breaker alignment to within one hour after the EDG has been declared inoperable.

In all instances the EDGs cited in the violation were returned to service within their 72 hour LCO action statements. At the present time, with unit 1 in mode 6 and unit 2 in mode 1, both unit 1 EDGs are operable, as are both unit 2 EDGs.

4. Corrective Actions To Avoid Further Violations

OSO.125, revision 2, was issued January 20, 1997, to instruct the operators to perform the appropriate unit breaker alignment surveillance prior to removal of an EDG from



service. This revision also instructed the operators to perform the appropriate unit data sheet within one hour after the EDG is declared inoperable. This data sheet is a shorter version of the breaker alignment surveillance, which can be performed entirely from the control room. Therefore, the conservative action of performing breaker alignments both prior to and within one hour after the removal of an EDG from service will be performed.

PMI-2293, "On-Line Maintenance of Important Systems", was revised to include generic guidance on performance of action statement requirements for pre-planned activities.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 23, 1996, with the issuance of OSO.125, revision 1. As discussed above, with unit 1 in mode 6 and unit 2 in mode 1, both unit 1 EDGs are operable, as are both unit 2 EDGs.

NRC Violation II

"10-CFR 50, Appendix B, Criterion III, "Design Control," requires, in part that measures... be established for the selection and review for suitability of application of materials, parts, equipment and processes that are essential to the safety-related functions of the structures, systems and components.

"Contrary to the above, on April 1, 1991, the engineering memorandum authorizing the selection of non-safety grade pipe connecting the Trico oilers to the oil reservoirs on the safety related auxiliary feedwater pumps, a part essential to the safety-related function of the auxiliary feedwater pump, did not adequately address the suitability of use of non-safety grade pipe."

This is a severity level IV violation. The severity level for the violation was verbally communicated by the senior resident inspector, as the statement was missing from the inspection report.

RESPONSE TO NRC VIOLATION II

1. Admission or Denial of the Alleged Violation

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

2. Reason for the Violation

The cause of the violation was the erroneous conclusion by an engineer that the piping connecting a Trico bottle oiler to the auxiliary feedwater pump had no safety function of its own and, therefore, did not have to be safety grade material.

In the 1991 time frame, we were performing quality level requirements reviews for spare parts on a variety of plant components. On April 1, 1991, an engineer concluded:

"... the ... Trico bottle oiler complete with the connecting piping for use in the auxiliary feed pump has no safety function of its own and postulated failures would have no effect on the parent component's ability to satisfactorily perform its safety function."

The Trico oilers are a standard design used in the industry, employed to maintain the bearing oil at a pre-set level by providing a reservoir which provides makeup for minor oil leakage. At the time the above position was rendered, the involved engineer concluded:

"The Trico bottle oiler provides an external indication of bearing housing oil level and serves to provide make-up to the bearing housing. The Trico bottle oiler, however, does not prevent drainage of oil from the housing."

The engineer correctly concluded that failure of the Trico oiler would not result in drainage of oil from the bearing housing, and, therefore, would not lead to failure of the parent component, the auxiliary feedwater pump. However, the engineer included the pipe connecting the Trico oiler and the bearing within the scope of this determination. The engineer failed to consider the consequences of the failure of the pipe. Failure of this pipe would lead to loss of oil from the bearing housing and eventual failure of the pump bearing and pump. Therefore, the engineer incorrectly concluded the pipe could be non-safety grade.

3. Corrective Steps Taken and Results Achieved

Upon identification of this situation, an operability determination was promptly performed which concluded the installed pipe and fittings were of acceptable quality and the auxiliary feedwater pumps were declared operable. Acceptable quality was confirmed based on material verifications, ultrasonic testing to confirm material thickness, pipe fabrication to a known standard, and dimensional review of the configuration to ensure compliance with the vendor recommended configuration. Additionally, an analysis of static loads was performed, which revealed significant static design margin. Confirmatory analyses were performed regarding the dynamic loading on the oiler piping as a result of questions by your staff. These confirmatory analyses verified the dynamic loads resulted in stresses well within allowable stresses, and the operability determination was correct.

4. Corrective Actions Taken to Avoid Further Violations

The engineering memo, dated April 1, 1991, has been deleted from the files, and a separate controlled memo has been issued to document the position that the piping used to connect the Trico oilers with the auxiliary feedpumps shall be safety grade.



A review of work control process records since 1991 was performed to determine whether other safety grade pumps employing Trico oilers could have had non-safety grade pipe and fittings installed. No other instances were identified where non-safety grade pipe and fittings were issued for oiler work on these pumps.

Finally, the specific subject example was shared with appropriate members of the engineering staff. It was reinforced that judgments on quality level must be based on an analysis with rigor similar to what is currently being performed for operability determinations, that is, to consider functions, failure modes and effects.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on January 16, 1997, when testing and analysis was completed for the Trico oiler piping on the auxiliary feedpumps, restoring the oiler piping and fittings to full qualification. Final documentation of the in situ dedication was assembled and approved on March 6, 1997.

ATTACHMENT 2 TO AEP:NRC:1238I

CORRECTIVE ACTIONS TAKEN IN RESPONSE TO
NON-CITED VIOLATION



In the cover letter for inspection report 96-015, additional information was requested regarding corrective actions for the non-cited violation given for failure to properly record data in accordance with 12 EHP-4030.STP.209, "Test of Containment Hydrogen Skimmer Ventilation". The following information is submitted in response to the request.

Following the problem identified with the reading of spring scales, the "Job Briefing Form" used by performance testing engineering (ENPT) was revised to add a section to document the test instrument being used, its range, and its smallest recordable division. Information regarding the changes made to the briefing form was disseminated to engineering personnel via email. Additionally, a memo was sent to the engineering personnel containing the same information on March 14, 1997.

A training session is being planned to discuss the event with all ENPT staff. During this meeting, examples of common test equipment used, including the spring scale, will be discussed and proper data taking techniques will be emphasized. This training session is specifically geared to the ENPT staff as they are the engineering personnel who work most closely with the test equipment. This session is planned for the end of April, 1997.

In addition, a training module/qualification card will be developed to introduce new staff to proper test instrumentation measurement techniques, as well as serve as recurring training for existing staff. This training module will be completed by August 31, 1997.

