

INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631
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April 28, 1986
AEP:NRC:0987

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
NRC INSPECTION REPORT NOS. 50-315/86005(DRS)
AND 50-316/86005(DRS)

Mr. James G. Keppler
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Keppler:

This letter is in response to Mr. C. J. Paperiello's letter dated March 28, 1986, which forwarded the special safety inspection conducted by members of your staff. This inspection was conducted from February 3 through March 3, 1986 on activities at the D. C. Cook Nuclear Plant Units 1 and 2. The Notice of Violation attached to Mr. Paperiello's letter identified three violations, which are addressed in the attachment to this letter.

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,


M. P. Alexich *EBK*
Vice President *4/28/86*

MPA/rjn
Attachment

cc: John E. Dolan
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Bruchmann
G. Charnoff
NRC Resident Inspector - Bridgman

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NRC Violation No. 1

- "1. 10 CFR, Appendix B, Criterion III, as implemented by the D. C. Cook Operations Quality Assurance Program and its commitment to standard ANSI N45.2.11, 'Quality Assurance Requirements for the Design of Nuclear Power Plants,' requires that designs receive independent verification and that these designs be appropriately documented.

Contrary to the above:

- a. The pipe support design shown on hanger Dwg. No. 1-ASI-L-923 for the CVCS Cross-tie Piping (DC-12-2665) had been redesigned by red-lining the drawing. There was no evidence the piping support redesign had been independently checked or verified. In addition to this, two lugs could not be installed as designated in the original design because of inadequate clearance. Lugs of a different size were installed without red-lining the installation drawing to document the change. Also, there was no evidence that this change received an independent design verification. This lug installation was later replaced due to material problems using a properly red-lined drawing, but again without an independent design verification.
- b. The replacement of carbon steel components in the steam generator blowdown tanks, completed in 1984 and 1985, were not documented on the tank drawings. In addition, no records could be located documenting previous modifications made to these tanks."

Response to NRC Violation No. 1Corrective Action Taken and Results Achieved

- 1.a. The pipe support mark No. 1-ASI-L-923 shown on hanger drawing 1-ASI-L-923 could not be installed in accordance with the approved as-designed drawing. The field condition necessitated certain minor changes from the approved drawing; these were noted and approved via red-lining. An item in the process of being red-lined on the support drawing might have been discussed by both design personnel; however, each red-lining was performed by one qualified design employee and was independently checked by the other qualified design employee prior to release of the red-lined drawing for installation. Some changes were approved in consultation with the AEPSC Design office. Although there were multiple minor changes, a review of the final support geometry confirms that the adequacy of the support had not been compromised.

The pipe lugs were downsized without proper authorization by craft personnel because of space limitations associated with their installation. The contractor QC personnel subsequently accepted the installation. However, this system was not released for operation and the deficient lugs were eventually replaced on July 20, 1985.

- 1b. Modifications to the steam generator blowdown flash tanks were performed in accordance with AEPSC General Procedure (GP) 25, "Design Changes." The replacement of carbon steel components in the normal blowdown tanks was documented under Request for Change (RFC) DC-12-2656, Rev. 0. The engineering checklist properly addressed the revision of the vendor drawings, and markups of the affected portions of these drawings were included in the RFC. Revision 1 to RFC DC-12-2656 was issued on April 30, 1984 to increase the scope of the RFC to include the start-up blowdown flash tanks. Due to an oversight, the RFC was issued for implementation without revision of the appropriate vendor drawings. The tank drawings were subsequently revised on April 10, 1986 and issued to the field.

Corrective Action to be Taken to Avoid Further Violation

- 1a. While we believe the design review was independent, there may have been confusion resulting from the use of the term "jointly." In this case, "jointly" indicated mutual concurrence and not concerted action. However, we have reemphasized to the two individuals involved in the design review the necessity of the independent review process. Actions to prevent recurrence of the pipe lug event were instituted in Revision 7 of PMI 5040, which became effective on February 3, 1986. This revision formalized a post-installation drawing validation by the installer's Quality control personnel and training on Revision 7 took place by February 3, 1986.
- 1b. To prevent this type of oversight in the future, a memorandum will be issued to appropriate personnel by May 15, 1986 to reemphasize the requirements in General Procedure 25 (Design Changes), that vendor drawings affected by a proposed change must be reviewed and updated as needed for proper documentation of the change.

Date When Full Compliance Will Be Achieved

- 1a. Full compliance was achieved on February 13, 1986, when the adequacy of the pipe support was confirmed. The correct pipe lugs were installed on July 20, 1985.
- 1b. Full compliance was achieved on April 10, 1986, when the appropriate vendor drawings were updated and issued to the field.

NRC Violation No. 2

- "2. 10 CFR 50, Appendix B, Criterion XVI, as implemented by the D. C. Cook Operations Quality Assurance Program, requires that measures be established to ensure that conditions adverse to quality are promptly identified and corrected.

Contrary to the above:

- a. In April 1982, licensee personnel were aware that the diesel generator (DG) room ventilation damper motors were undersized and seriously degraded. Condition Report (CR) No. 1-03-83-263 and LER No. 83-023, both addressing the damper issue, were written in March 1983. Modification No. RFC-12-2760, addressing replacement of the damper motors, was written in August 1985 and had not been completed at the time of this inspection. This does not represent prompt corrective action.
- b. With regard to CR No. 1-03-83-263 and LER No. 83-023, the licensee failed to identify the degraded damper motors as the root cause of the Diesel Generator inverter failures until January 11, 1985, 18 months after the event. These actions do not represent prompt identification of the event's basic cause to ensure appropriate corrective action."

Response to NRC Violation No. 2

Corrective Action Taken and Results Achieved

- 2a. As indicated in the Inspection Report, the scheduled date of June 1, 1986 made to the NRC inspector for the completion of RFC-DC-12-2760 is still appropriate. In addition, the interim measure taken in March 1983 to secure the damper in the open position has been reconfirmed. The temporary Herculite cover, used to prevent cold outside air from entering the room, has also been removed to ensure that ventilation air flow is not restricted.
- 2b. It was determined in April 1983 that the damper motors were degraded and required replacement. This is documented in correspondence between the plant and AEPSC. However, the LER was not updated to reflect this information. The new damper motors are currently planned to be installed by June 1, 1986.

Corrective Action to be Taken to Avoid Further Violation

- 2a. We are developing a new Corrective Action Plan (CAP), which is focused on timeliness of corrective action and effectiveness of preventive actions. The CAP includes two significant parts: (1) a new corrective action procedure and (2) the Consolidated Trends Program (CTP).

The new CAP will require adverse conditions, such as that cited in Condition Report 1-03-83-263, to be tracked within a specified time frame. When the time frame is nearing an end and proper actions have not been established, proper management levels will be notified that timely corrective action may not be occurring.

When documents such as design modifications (RFCs) are used to resolve an adverse condition, the RFC number will be directly associated with the corrective action document. If the completion of the associated document is necessary to ensure nuclear safety, then the timeliness of completing the associated document will also be tracked.

The schedule for developing the CAP is dependent upon the results of the NRC (NRR/Region III) and D. C. Cook meetings currently planned during April and May, 1986. Following these meetings we will inform you of the complete schedule for the CAP.

- 2b. The new CAP, discussed in paragraph 2a., will include trending of equipment failures, such as the diesel generator inverter failure. The trending should determine whether or not the preventive actions have effectively eliminated the cause of the failure. Recurring equipment problems will be promptly evaluated to determine the cause of the repeat occurrence.

Date When Full Compliance Will Be Achieved

Full compliance was achieved in March 1983, when the dampers were secured in the open position. RFC DC-12-2760 is planned to be completed by June 1, 1986.

NRC Violation No. 3

- "3. 10 CFR 50.59 requires that a safety evaluation be performed for any modification that changes the configuration of the plant as described in the FSAR.

Contrary to the above, the licensee installed Herculite over the supply ventilation damper in the Unit 1 Diesel Generator room without performing the required safety evaluation. This modification could lead to high temperatures in the room when the generators are running and the subsequent loss of their availability due to these high temperatures."

Response to Violation No. 3

Corrective Action Taken and Results Achieved

On February 13, 1986 a safety evaluation using form PMI-1040 Attachment 4 ("Plant Nuclear Safety Review Committee Checklist") was completed. This included the appropriate attachments from PMI-2140 ("Temporary Modifications") for each modification installed on the diesel generator room supply ventilation shut-off dampers for each unit and the damper motors on Unit 1.

On February 14, 1986 the Plant Nuclear Safety Review Committee reviewed and approved the safety evaluations completed for the modifications.

Corrective Action to be Taken to Avoid Further Violation

Revision 6 of PMI-2140 ("Temporary Modifications") requires that a safety evaluation be performed on any modification that is to remain installed on a plant system or component when the system or component is returned to operable service. In addition, Revision 6 defined mechanical modifications, including mechanical stops, which encompass the mechanical modification installed on the shut-off dampers. The next revision, now in draft form for comment, emphasizes the requirement for a safety evaluation and strengthens the required documentation and tracking of temporary modifications. This revision is currently scheduled for implementation by July 1, 1986.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on February 14, 1986, when the Plant Nuclear Safety Review Committee reviewed and approved the safety evaluations of the modifications to the diesel generator room supply ventilation shut-off dampers and motors.

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8 (25 days)