



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN
VICE PRESIDENT
NUCLEAR

February 21, 1986
PY-CEI/OIE-0170 L

Mr. C. J. Paperiello, Director
Division of Reactor Safety, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
50-440/85081 Noncompliance Response

Dear Mr. Paperiello:

This letter is to acknowledge receipt of Inspection Report 50-440/85081 attached to your letter dated January 30, 1986. This report identifies areas examined by Messrs. D. E. Hills and G. F. O'Dwyer during their inspection conducted November 16, 1985 through January 9, 1986 at the Perry Nuclear Power Plant.

Attached to this letter is our response to the Notice of Violation dated January 30, 1986. This response is in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations.

Our response has been submitted to you within thirty days of the date of the Notice of Violation as you requested. If there are additional questions, please do not hesitate to call.

Very truly yours,

Murray R. Edelman
Vice President
Nuclear Group

MRE:njc

Attachment

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PDR ADOCK 05000440
G PDR

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Mr. C. J. Paperiello

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cc: Mr. J. A. Grobe
USNRC Site, SBB50

Mr. K. Connaughton
USNRC Site, SBB50

U.S. Nuclear Regulatory Commission
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Response to Noncompliance
50-440/85081-03

A. Statement of Violation

10 CFR 50, Appendix B, Criterion XI, as implemented by CEI's Corporate Nuclear Quality Assurance Program (CNQAP), Section 1100, Revision 6, states that "test results shall be documented and evaluated to assure that test requirements have been satisfied."

Contrary to the above, resolutions of failures to meet acceptance criteria in preoperational test procedure TP 1G43-P001, "Suppression Pool Makeup System," and TP 1C71-P002, "Reactor Protection System (RPS) Motor Generator (MG) Sets" results represent inadequate documentation and evaluation to assure that test requirements have been satisfied.

In test procedure TP 1C71-P002 results, the evaluation of failure to meet acceptance criteria per test exception E03 and field question 45000, pertaining to RPS MG set underfrequency trip, did not consider nonconservative aspects of the proposed justification for acceptance. This justification indicated that measuring and test equipment (M&TE) accuracy could account for the deviation from acceptable values. However, this rationale does not recognize that the M&TE accuracy could also indicate further deviation from acceptance criteria. The licensee did not review post-test calibration data to support the justification for acceptance. In test procedure TP 1G43-P001 results, failure to meet acceptance criteria per test exception E-01 and field question 40640, pertaining to upper containment pool to suppression pool dump times, provided inadequate justification for disregarding specific suppression pool data. In addition, calculations to determine suppression pool level from the change in upper containment pool levels did not account for construction tolerances as applied to the nominal design dimensions of the upper containment pool and suppression pool.

B. Response

1. Corrective Action Taken and Results Achieved

Field Question 45000 was written to resolve test exception E03 to Test Procedure TP 1C71-P002. This field question was answered prior to the implementation of Special Project Plan 0301 (SPP-0301) "Coordination of Setpoints and Interrelated Documents." The SPP was created to provide a consistent project philosophy on setpoints and develop an action plan to implement this philosophy. One of the areas which SPP-0301 investigated was the question of Test Acceptance Criteria vs. Instrument Accuracies. In response to the concern raised on Field Question 45000, a review of the test exception was performed which utilized the philosophy on instrument accuracies developed by the SPP. This review determined that the trip value noted in the test exception was acceptable, the same resolution as determined on the original field question. The resolution is based on the fact that the reactor protection system is protected by a low frequency trip set at 57 Hz. The trip in question is a backup low frequency trip designed to protect the motor-generator (MG) sets, and

is set at the factory at approximately 54 Hz. The measured trip setpoint including allowance for instrument accuracy has been evaluated and is acceptable to protect the MG sets. As noted in the inspection report, this review provides sufficient justification to resolve the test exception.

During the performance of Test Procedure TP 1G43-P001, supplemental information-only readings were taken of suppression pool level rise in addition to the carefully measured upper pool level decrease. The suppression pool level rise was noted by monitoring a float on the pool surface, using a ruler suspended from the pool access hatch on the 599' level. These data are subject to considerable inaccuracy and should not have been used for evaluation of the acceptance criteria. An evaluation of the test exception has been completed based on the upper pool data which was obtained from surveyed marks on the upper pool walls. This evaluation also utilized as-built suppression pool surface areas, the results of a dimensional tolerance study to determine worst case upper pool area due to construction tolerance (minimal pool area which translates into minimum volume dumped from the upper pool), and runout pump flow for each ECCS system as measured in the preoperational test program. The results of the evaluation show that even when the calculated minimum upper pool volume is dumped to the suppression pool within the system dump time, the resultant suppression pool level exceeds that necessary for the designed drywell vent coverage. In addition, calculations using the same tolerance study show that the design volume of makeup water is eventually dumped to the suppression pool. Thus, the containment analysis parameter on suppression pool volume for long term response calculations (given in Table 6.2-5 of the VCSAR) will be achieved. The results of this evaluation provide sufficient justification to resolve the test exception.

2. Corrective Action to Prevent Further Noncompliance

The Special Project Plan 0301 has provided a consistent approach to setpoints and to the question of instrument accuracies vs. test acceptance criteria. The training and awareness associated with SPP-0301 provide assurance that future resolutions of instrument accuracies will be treated in accordance with project philosophy. The Cleveland Electric Illuminating Company believes that the two resolutions noted in the item of noncompliance are isolated instances. It is believed that the revised resolutions to the test exceptions provide the proper and complete corrective action necessary.

3. Date When Full Compliance Will Be Achieved

Full compliance has been achieved.