

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/85055 (DRP); 50-441/85020 (DRP)

Docket No. 50-440; 50-441

License No. CPPR-148; CPPR-149

Licensee: Cleveland Electric Illuminating Company
Post Office Box 5000
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Units 1 and 2

Inspection at: Perry Site, Perry, OH

Inspection Conducted: August 5-9 and August 12-16, 1985

Inspector: C. H. Scheibelhut

C. H. Scheibelhut
Date 8/27/85

Approved by: *R. F. Warnick for*
R. C. Knop, Chief
Reactor Projects, Section 1C

8/30/85
Date

Inspection Summary

Inspection on August 5-9 and August 12-16, 1985 (Reports No. 50-440/85055 (DRP); 50-441/85020 (DRP))

Areas Inspected: Routine safety inspection by a Regional Inspector of licensee actions on previous inspection findings, evaluation of licensee action with regard to IE Bulletins and confirmatory items called for in the Safety Evaluation Report. The inspection involved a total of 72 inspector-hours onsite by one NRC inspector and includes 0 inspector-hours during off-shifts.

Results: No violations or deviations were identified.

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Details

1. Persons Contacted

Cleveland Electric Illuminating Company

M. D. Lyster, Manager, Perry Plant Operating Department (PPOD)
F. R. Stead, Manager, Nuclear Engineering Department (NED)
J. J. Waldron, Manager, Perry Plant Technical Department (PPTD)
V. K. Higaki, Unit Supervisor, Nuclear Quality Assurance Department (NQAD)
B. D. Walrath, General Supervising Engineer, NQAD
E. C. Willman, Senior Engineer, NED
B. S. Ferrell, Licensing Engineer, NED
W. R. Kanda, General Supervising Engineer, PPTD
B. B. Liddell, Operations Engineer, PPTD
P. Russ, Compliance Engineer, PPTD
N. J. Lehman, Staff Analyst, PPTD

2. Licensee Actions on Previously Identified Items (92701)

- a. (Closed) Open Item (440/85002-07(DRP)): "Applicant response to two TPI-18 exempted situations which do not provide equivalent controls." During a review of Test Program Instruction (TPI)-18, Rev. 3, "Temporary Alterations", the inspector found that in two situations the necessary controls to assure restoration of electrical circuits did not seem to be present. The licensee was investigating the concern.

The licensee responded by revising the TPI so that restoration of temporary alterations had the necessary controls. Also the use of the TPI was restricted to restoration of alterations implemented in accordance with previous revisions of the TPI. Any future temporary alterations will be in accordance with Plant Administrative Procedure (PAP)-1402, Rev. 2, "Control of Lifted Leads, Jumpers, Temporary Electrical Devices and Mechanical Foreign Items."

The inspector reviewed TPI-18, Rev. 4 and found that all restorations would have the necessary controls. PAP-1402, Rev. 2, was also reviewed and found to have the necessary controls for temporary alterations. In addition, the inspector reviewed the active MFI/LLJED log in the control room and eight examples were chosen at random for a field check of lifted leads and jumpers. Five were in panels and three in motor control center cubicles. In all cases, the log, lifted leads, jumpers, and tags were in accordance with the procedure. This item is closed.

- b. (Closed) Open Item (440/85010-02 (DRP)): "PAP-0204 Housekeeping Requirement Deficiency". In the Final Safety Analysis Report (FSAR), the licensee committed to using the requirements of ANSI Standard N45.2.3-1973, "Housekeeping During the Construction Phase of Nuclear Power Plants" with the exception that three housekeeping zones would be established in lieu of the five required by the standard. Plant Administrative Procedure (PAP)-0204,

"Housekeeping/Cleanliness Control Program", implements the requirements of N45.2.3. The inspector reviewed the procedure and was concerned that the three zone system and the procedures were too vague to ensure implementation of requirements equivalent to those in the standard.

The licensee amended the FSAR to remove any exceptions to the standard and revised PAP-0204 to bring it into agreement with the standard.

The inspector confirmed the amendment to the FSAR and reviewed the revised PAP-0204. The review showed that PAP-0204 is now in agreement with the requirements of N45.2.3 without exceptions. This item is closed.

No violations or deviations were identified.

3. Safety Evaluation Report Follow-up Inspection Items (92701)

The Office of Nuclear Reactor Regulation (NRR) has requested that Region III inspectors confirm that the licensee has acceptably implemented certain Three Mile Island (TMI) action items and confirmatory issues as described in the Safety Evaluation Report (SER) for Perry, Unit 1 (NUREG 0881 with Supplements 1 through 6). In Inspection Reports 50-440/85022, 50-441/85012, and 50-440/85033, these items were listed as Open Items and entered into the Region III tracking system for future inspection. The items reported below are the results of the inspection of certain of the items.

- a. (Closed) SER Open Items (440/85022-03 (DRP)): "TMI Item I.A.1.3; Verify that shift manning has been established in accordance with SER 13.1.2.2 and 13.5.1.4". The licensee has written three Plant Administrative Procedures (PAPs) to implement the FSAR commitments and SER evaluation of the commitments concerning shift manning and practices. They are: PAP-0104, Rev. 1, "Operations Section Organization", PAP-0110, Rev. 1, "Shift Staffing", and PAP-0201, Rev. 1, "Conduct of Operations".

The inspector's review of these procedures and TMI Item I.A.1.3 requirements show them to be in agreement. This item is closed.

- b. (Closed) SER Open Item (440/85022-06 (DRP)): "TMI Item I.B.1.2; Determine that the applicant has established an independent safety engineering group (SER 13.4.3 and 13.5.1.6)". TMI Item I.B.1.2 required the establishment of an onsite independent safety engineering group (ISEG) and gave guidelines for its composition and duties. The licensee amended the FSAR to incorporate the requirements. The SER noted that the required ISEG was chartered and indicated the details of the charter. The SER also noted that implementing procedures would be developed to ensure that the requirements of the charter and the intents of NUREG-0737 were met.

The licensee has written the following implementing procedures: Nuclear Engineering Department Procedures (NEDP)-0201, "Independent Safety Engineering Group Operation" and Perry Operations Procedure (POP)-0203, "Independent Safety Engineering Group Operations".

The inspector reviewed the procedures, TMI Item I.B.1.2, FSAR Section 13.4.3, and SER Sections 13.4.3 and 13.5.1.6. The review showed that the intents of TMI Item I.B.1.2 contained in NUREG-0737 were met in their entirety. This item is closed.

- c. (Closed) SER Open Item (440/85022-08 (DRP)): "TMI Item I.C.2; Determine that the licensee has established procedures for shift and relief turnover procedures in accordance with SER 13.5.1.7". The licensee wrote Operations Administrative Procedure (OAP)-0103, "Shift Relief and Turnover" to prescribe these actions.

The inspector's review of the OAP showed that it met the requirements of TMI Item I.C.2. This item is closed.

- d. (Closed) SER Open Item (440/85022-09 (DRP)): "TMI Item I.C.4; Determine that procedures have been implemented to limit access to the control room in accordance with SER 13.5.1.9". In PAP-0201, Rev. 1, "Conduct of Operations", the licensee has included provisions that establish the authority and responsibility of the person in charge of the control room to limit access. It also establishes the line of authority in case of an emergency and limits it to persons possessing a current senior reactor operator's license. Also defined are lines of communication and authority for plant management not in direct command of operation.

The inspector's review of the PAP showed that it implements the above features in accordance with TMI Item I.C.4 and SER 13.5.1.9. This item is closed.

- e. (Closed) SER Open Items (440/85022-10 (DRP)), "TMI Item I.C.5; Determine that procedures have been established to provide operating experience to the staff (SER 13.5.1.10)." The licensee wrote Plant Operating Procedure (POP)-1503, Rev. 0, "Operating Experience Review", Nuclear Engineering Department Procedure (NEDP)-1504, "Operating Experience Review", and Project Administration (PA)-1601, "Evaluation of IE and INPO Documents" to comply with Item I.C.5.

The inspector's review of the procedures showed that they implement the requirements of TMI Item I.C.5 in all respects. This item is closed.

- f. (Closed) SER Open Item (440/85022-11 (DRP)): "TMI Item I.C.6; Determine that controls have been established for verification of correct performance of operating activities (SER 13.5.1.11 and SSER2 13.5.1.11)". In supplement 2 to the SER, the staff found that the commitments to write procedures responsive to the requirements of TMI Item I.C.6 were acceptable. This open item is to verify that the procedures have been written and issued.

The following procedures are pertinent to the implementation of the requirements of TMI Item I.C.6:

1. Equipment Control Procedures

PAP-1401, "Equipment Tagging"
PAP-1402, "Control of Lifted Leads, Jumpers, Temporary
Electrical Devices and Mechanical Foreign Items"
PAP-0205, "Operability of Plant Systems"

2. ALARA Procedures

PAP-0118, "Operational ALARA Program"

3. Surveillance Activities

PAP-1105, "Surveillance Test Control"
TAP-0503, "Preparation of Technical Specification Surveillance
Instructions"
OAP-1701, "Tracking of LCOs"

These procedures fit into the areas of concern in TMI Item I.C.6 as follows:

1. Surveillance Testing

TAP-0503 and PAP-1105

2. System Release for Maintenance or Surveillance Testing

PAP-0205, PAP-1402, and PAP-0118

3. Requirements for Independent Verification

PAP-0205 and PAP-1401

4. Equipment Status

PAP-0205 and OAP-1701

5. System Return to Service

PAP-0205

With the issuance of these procedures that comply with the requirements of TMI Item I.C.6, this item is closed.

- g. (Closed) Open Item (440/85022-20 (DRP)): "TMI Item II.E.4.2; Determine that containment isolation is complete (SER 3.9.3.2.1 and 6.2.7 and SSER2 6.2.7)". The SER for the FSAR raised a number of questions (Confirmatory Issue (23)) regarding compliance with TMI Item II.E.4.2 that deals with containment isolation. The licensee provided additional information which the staff reviewed. In supplement 2 to the SER, the staff considered the response acceptable

and stated that Confirmatory Issue (23) was resolved. One of the questions was the specification of the minimum containment pressure setpoint which would be provided and reviewed as part of the Technical Specifications for Perry.

The "proof and review" copy of the Perry Technical Specifications lists this setpoint as ≤ 1.68 psig. Since this final piece of information has been supplied for review by the staff, this item is closed.

- h. (Closed) SER Open Item (440/85022-27 (DRP)): "TMI Item II.K.1.10; Verify that controls have been instituted to ensure that critical valves operability status is known in accordance with SER 13.5.2.4. Also see IEBs 79-05, 79-06, and 79-08". Plant procedures PAP-0205, "Operability of Plant Systems", and PAP-1401, "Equipment Tagging", address the concerns of Item II.K.1.10.

The inspector reviewed the procedures and found that the concerns of the item have been addressed and ensure that the operability status of safety-related systems is known to plant operators. This item is closed.

- i. (Closed) SER Open Item (440/85022-31 (DRP)): "TMI Item II.K.3.17; Determine that controls are in place to report emergency core cooling system (ECCS) outages (SER 6.3.3)". The licensee committed to reporting outages of ECCS on an annual basis to meet the requirements of Item II.K.3.17. PAP-1604, "Reports Management", details the administrative controls for the preparation, review, approval and tracking of reports submitted to outside agencies.

The inspector's review of the procedure showed that it requires an annual report of ECCS outages to be submitted to the NRC on March 1 of each year. Since the necessary controls are in place, this item is closed.

- j. (Closed) SER Open Item (440/85022-42 (DRP)): "Confirmatory Issue 27 (SER 1.10); Determine that the scram discharge volume level monitoring system has been installed and tested (SSER4 7.2.2.4)". In an inspection conducted by Licensing Branch No. 1, Division of Licensing, the installation of the scram discharge volume (SDV) level monitoring system was confirmed. This inspection was documented in a letter from B. J. Youngblood to M. R. Edelman dated May 31, 1985.

While reviewing licensee actions taken to resolve a 10 CFR 50.55(e) report, the inspector confirmed that the SDV level monitoring system had been tested. This is documented in Inspection Report 50-440/85047 (DRP); 50-441/85019 (DRP). This item is closed.

- k. (Closed) SER Open Item (440/85033-10 (DRP)): "TMI Item II.K.3.13; Verify that the applicant has modified the reactor core isolation cooling system (RCIC) to provide automatic restart on a low reactor water level signal (SER 5.4.1)". The licensee made the necessary changes to permit automatic restart of the RCIC system on a low reactor water level signal. This feature was successfully tested

during Preoperational Test Procedure IE51-P-001, "Reactor Core Isolation Cooling". This item is closed.

1. (Closed) SER Open Item (440/85033-11 (DRP)): "TMI Item II.K.3.15; Verify that a time delay relay has been installed in the RCIC system isolation logic from the pressure instruments used to sense excessively high steam flow/steam supply line break (SER 5.4.1)". The licensee made the necessary changes to incorporate a time delay relay as indicated above. This feature was successfully tested during Preoperational Test Procedure IE51-P-001, "Reactor Core Isolation Cooling". This item is closed.

No violations or deviations were identified.

4. Evaluation of Licensee Action with Regard to IE Information Bulletins (92717)

For the IE Information Bulletin listed below, the inspector verified that the Bulletin was received by the licensee management, that a review for applicability was performed, and if the Bulletin was applicable to the facility, appropriate corrective actions were taken.

(Closed) IE Bulletin No. 79-26 (440/79026-BB, 441/79026-BB): "Boron Loss from BWR Control Rods". The General Electric Company (GE) informed the NRC that under certain conditions of high burnup in control rods, the rods could crack and the coolant then slowly leach out boron-containing material. This would lead to a loss in the effectiveness of the control rods.

GE also issued a Service Information Letter (SIL) No. 157 on the subject. The letter discussed the problem and recommended five actions to improve their customer's control rod management program. In essence, it reduces the maximum depletion of B^{10} from 42% to 34%.

The licensee wrote Fuel and Technical Instruction (FTI)-A03 to incorporate the SIL recommendations.

The inspector reviewed the FTI and concludes that recommendations have been incorporated into the licensee's control rod management program. This item is closed.

No violations or deviations were identified.

5. Exit Interview (30703)

The inspector met with the resident inspector and licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on August 16, 1985. The resident inspector summarized the scope and findings of the inspection. The licensee acknowledged the inspector's findings. The licensee did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.