

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/85046(DRP)

Docket No. 50-440

License No. CPPR-148

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

Facility Name: Perry Nuclear Power Plant, Unit 1

Inspection At: Perry Site, Perry, OH

Inspection Conducted: July 8 through August 5, 1985

Inspectors: J. A. Grobe  
F. R. Dunaway

Approved By: R. C. Knop, Chief *J. McErmid-Barger* 8/26/85  
Reactor Projects Section 1C *for* Date

Inspection Summary

Inspection on July 8 through August 5, 1985 (Report No. 50-440/85046(DRP))

Areas Inspected: Routine unannounced inspection by resident inspectors of previous inspection findings, Title 10 requirements, operational staffing, an allegation, preoperational test program implementation, independent inspection, and safety committee activities. The inspection involved a total of 112 inspector-hours onsite by two NRC inspectors including 22 inspector-hours onsite during off-shifts.

Results: Two previously identified open items were closed out and one previously identified open item was reviewed with only one area remaining to be addressed prior to close out. The implementation of certain Title 10 requirements during the preoperational testing phase was examined and no discrepancies were noted. One allegation was reviewed and found to be substantiated but the discrepant condition was being controlled by site procedures. Routine implementation of the preoperational testing program was observed and one violation was noted. The violation concerns untimely distribution and training for a revision to the procedure controlling temporary alterations (Paragraph 6). An initial meeting was conducted regarding administration and scheduling of the startup testing program. Routine activities of the test program review committee and the plant operations review committee were examined and found acceptable. Regional review of technical specifications continued identifying two open items regarding technical specifications for drywell testing and the redundant reactivity control system. An initial inspection of operational staffing qualifications was completed. Two unresolved items were identified regarding organizational structure and the qualifications of certain individuals to fill positions as described in the FSAR. Additional effort by the resident inspection staff and NRR reviewers will be required to resolve these concerns.

## DETAILS

### 1. Persons Contacted

- \*M. D. Lyster, Manager, Perry Plant Operations Department
- J. J. Waldron, Manager, Perry Plant Technical Department
- \*C. M. Shuster, Manager, Quality Assurance Department
- \*F. R. Stead, Manager, Nuclear Engineering Department
- \*S. F. Kensicki, Technical Superintendent
- \*B. D. Walrath, General Supervising Engineer, Operational Quality Section

The inspectors also contacted numerous other applicant representatives during the inspection period.

\*Denotes those persons attending one or more of the exit interviews conducted throughout the inspection period and on August 2, 1985.

### 2. Applicant Action on Previous Inspection Findings (92701)

- a. (Open) Open Inspection Item (440/85010-07(DRP)): General employee training course deficiencies. The inspector reviewed the revised lesson plans for general employee training, GEN 1001-001-01 through GEN 1001-001-06, issued May 13, 1985. These revised lesson plans resolved previously noted discrepant statements and incorporated additional material strengthening weak areas. The only remaining concern regards retraining previously approved persons to these new training requirements.
- b. (Closed) Open Inspection Item (440/85022-38(DRS)): Dual function pipe whip/support restraints. This issue originated in NRR as documented in Safety Evaluation Report Confirmatory Issue No. 9. NRR requested Region III by memorandum dated March 14, 1985, to confirm the resolution of this issue. After discussion between the inspector and NRR staff, NRR concluded, as documented by memorandum dated July 22, 1985, that no further confirmatory action by regional inspectors was necessary.
- c. (Closed) Open Inspection Item (440/85022-29(DRS)): Reactor vessel level instrumentation (TMI Item II.K.1.23). By memorandum dated March 14, 1985, NRR requested that regional inspectors confirm proper resolution of this TMI item. During conversations on August 5, 1985, between the inspector and NRR project manager, NRR concluded that no further effort is necessary by regional inspectors to close this issue.

### 3. Inspection of Title 10 Requirements (91300)

The inspector verified, by discussions with applicant personnel and by direct inspection, that the preoperational test program conformed to the

requirements of selected subsections of Title 10 of the Code of Federal Regulations. Specific subsections inspected included:

- . 10 CFR 19.11 Posting Requirements
- . 10 CFR 19.12 Instructions to Workers
- . 10 CFR 20.207 Storage and Control of Licensed Materials in Uncontrolled Areas
- . 10 CFR 50.55(e) Construction Deficiency Reporting
- . 10 CFR 50.55(a) Codes and Standards
- . 10 CFR 50.59 Changes, Tests and Experiments

No violations were identified.

#### 4. Operational Staffing (36301)

The inspector conducted a detailed examination of the operational staffing plan, as delineated in Section 13.1 of the FSAR and Section 6.2 of the proposed facility Technical Specifications, and as implemented by the applicant, to ascertain compliance with applicable standards, Regulatory Guides and other requirements.

Although the organizational structure was determined to be in accordance with the FSAR and proposed Technical Specifications, certain reporting relationships and lines of authority are not consistent with the standard nuclear plant organization described in ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel." Specifically, structural location of the Radiation Protection and Technical Sections results in the complete operational autonomy of these sections from the individual classified by the FSAR as "Plant Manager." "Plant Manager" as described in ANSI N18.1-1971, is the individual with control over the operations, maintenance and technical support elements in the organizational structure. The inspector considers this an unresolved item (50-440/85046-01a(DRP)).

The inspector verified that all staff positions will be filled at the time of issuance of the Operating License, and contrasted the qualifications of the individuals designated in the FSAR and staffing plan with the requirements for the positions they will fill, described in ANSI N18.1-1971 and Regulatory Guide 1.8, Revision 1 (5-75), "Personnel Selection and Training," as specified in Section 1.8 of the FSAR. During this portion of the inspection, the inspector identified four instances where the qualifications of the incumbent and the regulatory requirements for the position are at variance, including three instances where the individual had not attained required "actual applicable working experience (AAWE)" as defined in the Standard. The four examples are tabulated below and constitute an unresolved item (50-440/85046-01b(DRP)).

<u>Position</u>	<u>Incumbent</u>	<u>Requirement</u>	<u>Discrepancy</u>
Technical Manager (ANSI N18.1-1971)	Kanda	1 year nuclear Power Plant experience	All "nuclear" experience is at non-operating site (Perry).
Professional- Technical Radiation Protection and Radio-chemistry (ANSI N18.1-1971)	Stratman	5 years experience in Radiation Protection at a nuclear reactor facility 5 years experience in chemistry	AAWE is derived from Naval Nuclear Power program of which all time may not be creditable toward this requirement.
Radiation Protection Manager (Reg. Guide 1.8, Rev. 1 (5-75))	Vanderhorst	Bachelors Degree in Science or Engineering	Incumbent holds no baccalaureate degree.
Professional- Technical Reactor Engineering and Physics (ANSI N18.1-1971)	Minns	2 years experience in areas such as reactor physics, core measurements, core heat transfer and core physics testing	Only 1 year of non-power (i.e. training) reactor experience may be credited.

Following discussions on the above topics between the inspector and applicant management, the applicant indicated they would undertake a comprehensive review and update of Section 13 of the FSAR, to include a detailed correlation between staff positions and the positions described in ANSI N18.1-1971 and Regulatory Guide 1.8, Revision 1 (5-75). Resolution of the unresolved item will include review and acceptance of that update by NRR and the inspector.

With the exception of the unresolved items noted above, no violations or deviations were identified in this area.

#### 5. Allegation Followup (99014)

(Closed) Allegation (RIII-85-A-0121): Improperly sealed penetration in the bulkhead between the E-Pool and the drywell. The alleged indicated that he was concerned about an improperly sealed hole at approximately 15° azimuth in the bulkhead plate between the reactor vessel and drywell

wall separating the drywell from the B-Pool. The inspector located the seal and did not observe any local indication that the seal was not intended to be permanent. The inspector examined drawing number E-015-028, "Final Plant Layout-Reactor Cavity Bulkhead Seal Plate," which did not show the penetration. The inspector then examined the original fabrication drawing from Canadial Lukens Limited, Drawing No. E-130, Revision 10, "Refueling Bulkhead Assembly Details," which describes a 1 13/16 inch diameter hole drilled through the bulkhead at 15° azimuth.

The inspector examined the Mechanical Foreign Item logbooks to identify if the seal was intended to be temporary. The inspector noted that Mechanical Foreign Item (MFI) Tag Serial No. 84-1459, installed September 8, 1984, was issued to control a "temporary plug in the drywell to RPV bulkhead flange." Apparently the MFI tag had fallen off of the seal. The applicant issued nonconformance report (NR) CQC 4039 to resolve the need for a permanent seal and Action Request (AR) 0247 to address the lack of support documentation on the installation of the temporary seal.

While the MFI tag was not fixed to the temporary seal, the logbook contained the tag order which was required to be closed prior to placing the bulkhead into service. It does not appear that this item would have been overlooked. The potential improvements to the MFI control system and resolution of the need for a permanent seal are both being addressed through the applicant's corrective action program.

While the allegation was substantiated, the inspector determined that the temporary plug was documented. Hence was in a controlled management system for correction.

The inspector has no further concerns in this area.

6. Preoperational Test Program Implementation Verification (71302, 92706)

The inspector observed control room operation and test coordination, reviewed applicable logbooks and conducted discussions with control room operators and test personnel during the inspection period to ensure that test activities were being conducted in accordance with regulatory requirements and facility procedures. Tours of the Unit 1 reactor building, intermediate building, Unit 1 auxiliary building, fuel handling building, control complex and diesel generator building were conducted to observe test and maintenance work in progress, area housekeeping, equipment condition, and system cleanliness. The inspector also reviewed the minutes from Test Program Review Committee (TPRC) meetings No. 427 through 441 conducted during this inspection period to verify conformance with Nuclear Test Section procedures.

During the performance of the drywell structural integrity test, the applicant had to stop the test due to failure of the boot seals on the safety relief valve discharge lines where they penetrate the drywell.



The applicant is redesigning the boot seals and testing the new design. The inspector will follow the applicant's actions on this issue.

During a tour of the facility, the inspector noted that Temporary Change Notice (TCN)-005 for Plant Administrative Procedure (PAP) 1402, "Control of Lifted Leads, Jumpers, Temporary Electrical Devices and Mechanical Foreign Items," was being entered into the control room operations manual seven days after its effective date of July 3, 1985. This change modified the procedure for controlling temporary alterations affecting equipment under test jurisdiction and temporary alterations affecting annunciators. On further examination, the TCN-005 effective date was the same day as the approval date and no special arrangements were made for distribution of the procedure to the appropriate locations or training to the new procedure by the involved personnel. Further, the "Change Entered by" and "Date" blanks on the TCN form were not filled in and no procedural requirements exist to utilize those blanks. The untimely distribution of this procedure change is a violation of the document control requirements in 10 CFR 50, Appendix B, Criterion VI (440/85046-02 (DRP)). The other program deficiencies will be closed out concurrent with this violation.

On August 2, 1985, the applicant initiated implementation of the physical security system with lockdown of the perimeter entrances and utilization of the key card system for access to and egress from the protected area. This initial step in the security system was smoothly implemented. The inspector and regional based inspectors are following the security plan implementation.

As a result of preoperational test and operational readiness concerns about instrumentation setpoints, the applicant initiated Special Project Plan 301, "Coordination of Setpoints and Interrelated Documents." The purpose of this plan is to propose resolution to currently identified concerns with the Master Setpoint List and assign tasks including backfit actions, to implement those resolutions. The inspector will examine the activities which the applicant proposes to resolve the concerns.

On July 18, 1985, the Senior Resident Inspector - Operations and the Lead Regional Test Inspector met with the applicant's startup test staff to discuss the startup test program. Topics discussed included: (1) organization, (2) instruction development status, (3) FSAR Section 14 status, (4) Plant Administrative Procedure 1104, "Startup Test Program," proposed startup testing schedule and the schedule for startup test instruction submittal to the NRC. The inspectors stressed that the administrative controls apply to both preoperational and startup test activities and that the startup test instructions are required to be submitted to the NRC 60 days prior to fuel load.

7. Safety Committee Activity (40301)

The inspector reviewed the minutes of Plant Operations Review Committee (PORC) meetings No. 85-57 and 85-60 through 85-65 conducted during the inspection period to verify conformance with PNPP procedures and regulatory requirements. The observations and examinations included PORC membership and qualifications, quorum at PORC meetings, and PORC activities.

No violations or deviations were identified in this area.

8. Technical Specifications Review (71301)

During this inspection period, regional inspectors completed review of the technical specifications regarding core physics, core thermohydraulics and reactivity control. Comments and concerns regarding these specifications were forwarded to NRR for resolution by memorandum dated August 14, 1985. In addition to those comments, another issue was identified. The inspector noted that there are no technical specifications proposed for the Redundant Reactivity Control System/ Alternate Rod Insertion System. The inspector understands that the applicant and NRR are developing those specifications. This concern will be tracked as an open inspection item for closure prior to license issuance (440/85046-03(DRP)).

In addition to this review, the resident inspector examined the drywell pressure testing specifications in light of the recent drywell boot seal failures. The inspector is concerned that the type of failure disclosed during the preoperational structural integrity test (30 psi peak pressure) would not be disclosed during the 40 year plant lifetime because the peak test pressure required by the technical specification surveillance requirements is 2.5 psi, approximately one tenth the required pressure retaining requirement following a design basis loss of coolant accident. The inspector will follow up on this concern with NRR and track this concern as an open inspection item (440/85046-04(DRP)).

9. Open Inspection Items

Open inspection items are matters which have been discussed with the applicant, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or applicant or both. Two open inspection items disclosed during the inspection are discussed in Paragraph 8.

10. Unresolved Inspection Items

Unresolved items are matters which have been discussed with the applicant, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or the applicant or both. An unresolved item disclosed during the inspection is discussed in Paragraph 4.

11. Exit Interviews (30703)

The inspectors met with applicant representatives denoted in Paragraph 1 throughout the inspection and at the conclusion of the inspection period on August 2, 1985. The inspectors summarized the scope and results of the inspection and discussed the likely content of this inspection report. The applicant did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.