

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-440/88010(DRS); 50-441/88005(DRS)

Docket Nos. 50-440; 50-441

License No. NPF-58;
Construction Permit No. CPPR-149

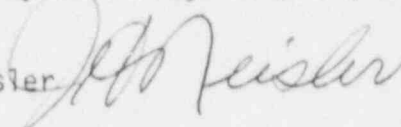
Licensee: Cleveland Electric Illuminating Company
Post Office Box 5000
Cleveland, OH 44101

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

Inspection At: Perry Site, Perry, Ohio

Inspection Conducted: May 23 through June 10, 1988

Inspector: J. H. Neisler



6/21/88
Date

Approved By: Ronald N. Gardner, Chief
Plant Systems Section



6/22/88
Date

Inspection Summary

Inspection on May 23 through June 10, 1988 (Reports No. 50-440/88010(DRS);
No. 50-441/88005(DRS))

Areas Inspected: Routine announced inspection of the licensee's implementation of Generic Letter 83-28 in the areas of equipment classification, vendor interface, post maintenance testing and reactor trip system reliability. Extended construction delay inspection of unit 2. Closed TI 2515/64R1 and TI 2515/95 (25564) (25595) (92050).

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

Principle Licensee Employees

*E. Riley, Director, Quality Assurance
*M. Lyster, General Manager, Perry Plant
*M. Cohen, Maintenance Manager
*C. Shuster, Director, Nuclear Engineering
*G. Dunn, Supervisor, Compliance
*R. Luse, Supervisor, Training
*D. Takacs, Manager, MMQS
*B. Walwrath, Manager EPSS
*J. Lausberg, Supervisor, OSPU
*P. Begany, Superintendent, Unit 2
M. Manley, Supervisor, Unit 2
E. Parker, Supervisor, Quality Inspection
*E. Buzzelli, Manager, Licensing and Compliance
*R. Stratman, Manager, RDAS
*A. Silakoski, Manager, RDAS
E. Larned, Maintenance Engineer
M. Szabo, Planning
W. Brownlee, System Engineer
F. Von Ahn, System Engineer
T. Calkins, Lead Surveillance Coordinator
D. Graneto, Maintenance
T. Boss, Audit Supervisor
B. Scheidman, Compliance Engineer
D. Jones, Compliance Engineer
J. Wright, I&C Supervisor
W. McKibben, I&C Supervisor

*Denotes those persons attending exit interview.

2. TI 2515/64R1 (Closed)

a. Equipment Classification

The inspector selected six components in the reactor protection system and nine components in the low pressure core spray system for examination during this inspection. The components selected were:

Reactor Protection System

Scram Pilot Valve Solenoid

Scram Discharge Valve

Back-up Scram Valve

Low Pressure Core Spray (LPCS)

LPCS Pump #1

LPCS Pump Motor

Valve MO-F001

Reactor Protection System

Manual Scram Switch

Hydraulic Control Unit

24 VDC Power Supply

Low Pressure Core Spray (LPCS)

Valve MO-F005

Check Valve F006

Flow Transmitter FT-N003

Circuit Breaker EH-1111

Flow Element FE-N002

Pressure Transmitter PT-N052

For the selected components the inspector performed the following reviews, examinations or inspections:

- (1) The inspector reviewed the Perry Q-List and the licensee's procedures controlling the classification of plant structures, systems, components and activities. The Q-List in conjunction with the Perry Equipment Masterfile System and the Maintenance Information System are used in the work order process to assure the correct classification of activities affecting safety-related structures, systems and components. In addition, the inspector reviewed work orders, modifications, tests and maintenance procedures and inspection and surveillance reports. All the documents reviewed were properly classified.
- (2) To determine the level of plant management oversight, the inspector reviewed procedures promulgated by the plant management, quality assurance and nuclear engineering departments. The procedures controlled classification of structures, systems, and components, maintenance activities, inspection and testing of safety-related items, quality assurance audits and surveillances.
- (3) The inspector reviewed surveillance procedures, calibration procedures, maintenance procedures and instructions, functional test procedures and storage procedures to verify that the licensee has issued adequate procedures and instructions for the performance of safety-related activities.
- (4) The inspector reviewed the licensee's program and implementing procedures for the training and indoctrination of technicians, craft workers, staff engineers, planners and supervisors, whose duties include safety-related activities. Training records indicated that the above personnel were being trained according to applicable procedures.
- (5) The inspector reviewed nine audit reports and 21 surveillance reports documenting Quality Assurance audits and surveillances involving safety-related activities. The quality assurance organization maintains a schedule of planned audits and surveillances for safety-related activities at the plant.

- (6) The corrective action program for safety-related activities is described in the licensee's Quality Assurance Manual and implementing procedures. The inspector's review of corrective action for audit and surveillance findings revealed that corrective action for these findings was timely and adequate.
- (7) Review and evaluation of information concerning malfunctioning of plant equipment is controlled by the license's nonconformance and condition report programs. Procedure POP-1503 "Evaluation of Operating Experience Reports," requires review and evaluation of malfunctioning equipment reported by manufacturers, vendors, INPO and regulatory agencies. Included in the reviews and evaluations is the determination of the suitability of the equipment to perform its design function.
- (8) The inspector reviewed two safety-related modifications (Design Change Packages) involving the low pressure core spray system (LPCS). The design change packages, drawings, work orders, inspection reports and procurement documents were correctly identified as to their safety classifications.

No violations or deviations were identified.

b. Vendor Interface

The inspector reviewed Procedures POP-602 "Vendor Information Control Program," PAO-609 "Vendor Manuals," NEI-251 "Vendor Design Documents," POP-301 "Design Control Program" and PEG-002, "Plant Engineering Guidelines". These procedures establish and implement control of plant components, vendor contacts and interfaces, and provide assurance that vendor information for safety-related components is current and complete. Vendor manuals for selected components in the reactor protection system and the low pressure core spray system were reviewed for completeness and to determine whether the manuals accurately reflected the installed equipment. Controlled vendor technical manuals were available for each selected component and each manual appeared to be the current revisions.

The inspector did not identify any installed components that had been supplied by vendors who had gone out of business. Vendors for the components selected are major suppliers of those components to the nuclear industry. The licensee's procedures for controlling and replacing equipment and vendor technical information were reviewed and determined to adequately control situations where the vendor refuses to supply information.

No violations or deviations were identified.

c. Post Maintenance Testing

The inspector selected components from the reactor protection and low pressure core spray systems for review to ascertain whether the licensee was implementing a post maintenance test program.

For the selected components, the inspector determined that:

- (1) Post Maintenance test procedures and checklists have been developed by the plant staff. The inspector reviewed procedures, completed tests and work orders to verify that post maintenance testing was being accomplished on the selected components in accordance with the licensee's commitments.
- (2) Criteria and responsibilities for maintenance approval and for designating activities as safety-related or non safety-related have been established in work order initiation procedures. Criteria for post maintenance testing and inspection are delineated in work order procedures and quality inspection procedures.
- (3) Methods for performing functional testing following maintenance activities on safety-related components have been developed and are delineated in published plant operations and surveillance procedures.
- (4) The inspector reviewed over 25 completed safety-related maintenance work orders and their supporting documentation. The work orders were appropriately classified, properly approved and the persons who performed the activity and inspections or verifications were identified on the work order and supporting documentation.

No violations or deviations were identified.

d. Reactor Trip Systems Reliability

At Perry, on-line functional testing of the scram pilot solenoid valves is performed with the reactor systems instrumentation channel functional tests at the frequency required by the plant technical specifications. The inspector reviewed test procedures and test results for the following functional tests:

Reactor Vessel Dome Pressure - High
Reactor Vessel Water Level - Low
Reactor Vessel Water Level - High
Main Steam Line Isolation Valve Closure
Main Steam Line Radiation - High
Drywell Pressure - High
Turbine Stop Valve Fast Closure
Scram Discharge Volume High Level Trip
Manual Scram
Average Power Range Monitor High Flux Trip
Intermediate Range Monitor Trip

The procedures appeared to be adequate and the test data sheets indicated that testing was being accomplished at the frequencies required by the Technical Specifications.

3. TI 2515/95 (Closed)

The inspector ascertained by review of as-built drawing B-208-023, Sheet A06, Revision H, "Redundant Reactivity Control System," that the licensee has installed a recirculating pump trip that is actuated by either low reactor vessel water level or high reactor vessel dome pressure.

4. Unit 2 Extended Construction Delay (92050)

- a. (Closed) Open item (441/87004-01) Painting and caps on high end of pipe spool pieces in the Parmly Road laydown area. The inspector verified by visual inspection that the pipe spool pieces have been cleaned and painted and that plastic end caps have been installed on each spool piece high end. This item is closed.
- b. The inspector, accompanied by licensee personnel, toured the site construction areas. Included in the tour were the reactor building, auxiliary building, diesel building, control and intermediate building and material storage areas.

The licensee has established a preservation and maintenance program for plant components and material that is administered by a permanently assigned engineering and supervisory staff. A training and indoctrination program for craft workers performing maintenance and preservation activities has been implemented to assure that assigned personnel have the necessary qualifications for the performance of their assigned tasks.

The inspector observed that stored-in-place components have protective covers and that items susceptible to corrosion have been coated with an engineering approved inhibitor. Each item observed by the inspector had an inspection and maintenance checklist attached. These checklists included inspection, lubrications, cleaning, and equipment rotation instructions.

Quality assurance is performing inspections of each item of equipment and material in the storage areas at each scheduled maintenance. The NRC inspector reviewed inspection and maintenance procedures, inspection results and completed maintenance work orders involving Unit 2.

No violations or deviations were identified.

5. Exit Interview

The inspector met with licensee representatives (denoted under Paragraph 1) at the conclusion of the inspection and summarized the scope and findings of the inspection. The licensee acknowledged the inspector's comments. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents or processes as proprietary.