U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-255/80-13

Docket No. 50-255 License No. DPR-20

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Palisades Nuclear Generating Plant

Inspection At: Covert, MI

Inspection Conducted: July 1-3, 7-11, 14-19, 21-25, and 28-31, 1980

Inspectors: for B. L. Jorgensen 8/18/80

for J. K. Heller 8/18/80

Approved By: for D. C. Boyd, Chief 8/18/80
Projects Section 4

Inspection Summary

Inspection during July, 1980 (Report No. 050-255/80-13)
Areas Inspected: Routine monthly resident inspection program activities including operational safety; maintenance; surveillance; reportable events; plant trips; organization and administration; review and audit; unresolved items; and action on NRC correspondence. The inspection involved 240 onsite inspection hours by two NRC inspectors, including 44 hours of off-shift inspection.
Results: Of the nine areas inspected, no noncompliance or deviations were identified in eight areas. One item of noncompliance (Infraction - failure to adhere to administrative procedures for equipment control - Paragraph 2) was identified in the remaining area.

DETAILS

1. Persons Contacted

J. G. Lewis, General Manager (until August 1, 1980)
*R. W. Montross, General Manager (effective August 1, 1980)
*H. W. Keiser, Operations and Maintenance Superintendent
*R. E. McCaleb, Quality Assurance Superintendent
W. S. Skibitsky, Operations Superintendent
B. L. Shaner, Operations Supervisor
*G. H. Petitjean, Technical Engineer
*J. A. Meincke, Technical Engineer/Reactor Engineer
F. G. Butler, Senior Engineer
D. VanDenBurg, General Engineer
J. E. Breson, General Engineer
D. W. Kaupa, Shift Supervisor
A. S. Kanicki, Shift Supervisor
E. I. Thompson, Shift Supervisor
N. Hough, Training Supervisor
S. F. Pierce, Radioactive Materials Control Supervisor
K. M. Farr, Public Affairs Director

Numerous other members of the operations, technical, radiation protection and administrative staffs were also contacted briefly.

*Denotes those present at management interview August 6, 1980.

2. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of July, 1980. The inspector verified the operability of selected emergency systems, reviewed tagout records and evaluated proper return to service of affected components.

On July 9 and 10, 1980, the inspector observed preparations for and establishment of plant criticalities. Shortly after the criticality of July 10 at approximately 1230 hours (EDT), the inspector identified an incomplete Equipment Outage Request (EOR) relating to NI-003, a wide-range nuclear power instrument. According to licensee Administrative Procedure 5.0, paragraph 5.1.12.7, equipment controlled by an EOR may not be considered operable or relied upon to perform its design function until stipulated reviews and signoffs are made, completing the EOR Form. In that the NI-003 instrument was considered operable and relied upon for the achievement of criticality without prior proper completion of the EOR, the licensee violated Administrative Procedure 5.0. When this matter was brought to his attention by the inspector, the licensee immediately verified required

administrative review and release were performed and completed required signatures, thus properly establishing operability of the equipment by about 1500 EDT the same day. Adherence to administrative procedures for equipment control is a requirement of Technical Specification 6.8.1 by reference to Regulatory Guide 1.33, Appendix A. Violation of the procedural requirements as discussed above is therefore an item of noncompliance with the referenced Technical Specification. This item is an Infraction.

On July 28, 1980, the licensee reported discovered the previous day that containment sump isolation valve CV-3030 had been open. This valve, which would supply suction to one train of safety injection and containment spray pumps from a full sump following initial injection for a loss-of-coolant accident, is to be maintained closed during normal operation. With the valve open to an empty sump, the integrity or operability of one safeguards train could have been compromised in an accident situation. The licensee's investigation indicates the valve was opened at 1936 hours (EDT) on July 25, 1980, and remained open until 0736 hours (EDT) on July 27, 1980. A special NRC inspection was initiated from the Region III Office of Inspection and Enforcement. The resident inspector assisted this effort and will continue with review and evaluation of the matter, which is being documented in a separate inspection report[1/].

Tours of the auxiliary building and turbine building were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. The inspector walked down portions of the HPSI, LPSI, and containment spray systems to verify operability.

The inspector witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling. This included inspection of all solidified liquid waste packages placed on the initial shipment since the licensee switched to a concrete solidification process. Package labeling and associated shipping papers were examined, as were vehicle placarding and package radiation levels.

One item of noncompliance and no deviations were identified in this area of inspection.

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3. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

P-55B - charging pump "B" preventive maintenance
P-55C - charging pump "C" preventive maintenance
P-56B - boric acid pump "B" preventive maintenance
K-7A - diesel-generator motor preventive maintenance

Following completion of maintenance on the components denoted above, the inspector verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified.

4. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the control rod system, including rod exercising and rod drop testing and verified that testing was performed in accordance with adequate procedures, that limiting conditions for operation were met, and that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test. A previously identified unresolved item was addressed during this review. See Paragraph 9, below.

The inspector also witnessed portions of the following test activities: inservice inspection testing of containment spray and service

water pumps; start testing of emergency diesel generator; and safety system valve position verification.

No items of noncompliance or deviations were identified.

5. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

LER 80-17 - "Improper Calibration of Containment Pressure Switches." The licensee identified that the procedure for calibration of the containment pressure switches was in error. The procedure required the pressure setting to be set at less than 5 PSIG whereas Technical Specification (T.S.) requires the settings to be 5 ($\pm$.75) PSIG. The procedure was rewritten and switches reset prior to startup. This item is closed.

The resident inspector identified to the licensee on June 30, 1980 that the T.S. "basis" for containment high pressure was not in agreement with the T.S. specification. The licensee stated the discrepancy is documented and will be corrected in a future T.S. change.

No items of noncompliance or deviations were identified.

6. Plant Trips

Following the plant trips on July 2, 1980, at 1739 hours (EDT), due to manual trip of the turbine to secure from sudden excessive oil leakage from the generator seal oil filter system, the inspector ascertained the status of the reactor and safety systems by observation of control room indicators and discussions with licensee personnel concerning plant parameters, emergency system status and reactor coolant chemistry. The inspector verified the establishment of proper communications and reviewed the corrective actions taken by the licensee. During startup, the plant tripped on July 9, 1980, at 1518 hours (EDT), due to a spurious high rate trip signal caused by a defective wide range nuclear instrumentation channel. Following the plant trip, the inspector again ascertained the status of the reactor and safety systems by observation of control room indicators and discussions with licensee personnel concerning plant parameters, emergency system status and reactor coolant chemistry. The inspector verified the establishment of proper communications and reviewed the corrective actions taken by the licensee.

All systems responded as expected, and the plant was returned to operation on July 10, 1980 at 1230 hours (EDT). Inspection relating to this plant startup is discussed in Paragraph 2 above.

No items of noncompliance or deviations were identified in this area of inspection.

7. Organization and Administration

The inspector verified that changes in the organizational structure and assignments had been reported to the NRC, and verified that persons assigned to new or different positions in the licensee's organization since the last inspection of this area satisfy qualifications identified in the technical specifications, the licensee's QA program, and applicable national standards.

No items of noncompliance or deviations were identified.

8. Review and Audit

The inspector reviewed the routine and special functions of the licensee's onsite quality control and quality assurance organizations relating to review and audit. Audit records were examined to ascertain they were conducted with prepared procedures, by qualified personnel, in accord with prescribed frequencies. Documentation, distribution, review and corrective action for audit findings, as appropriate, were selectively examined. A number of audit reports were reviewed.

No items of noncompliance or deviations were identified.

9. Action on Previously Identified Items

(Closed) - Unresolved item (05-255/76-14 Paragraph 3.C): The acceptance criteria for calibration of the safety injection tank water level instrumentation permitted the high and low level alarms to be set outside the Technical Specification (T.S.) limits. Level instrumentation consists of a level transmitter which provides a signal to a level indicator and annunicated hi/lo alarm, and a pair of float switches which are physically fixed in place and provide a signal to either a high or low annunicator alarm. The licensee has modified the level transmitter, per Palisades Field Change 418, to provide a wide and narrow range indication. The narrow range transmitter expands the level sensitivity in the operating range to allow the alarms to be set within T.S. limits. The float switches are physically fixed in place and alarm at the T. S. Limit.

(Closed) - Unresolved item (05-255/79/17 Paragraph 4.C): The biweekly movement of control rods per Palisades procedure "DWO-1" did not appear to satisfy the letter of the Technical Specification

(partial movement of all control rods a minimum of six (6) inches). The inspector reported that all control rods were moved at least four (4) inches as indicated by the data logger and were moved six (6) inches as indicated by the operator's initials on the surveillance check sheet. No actual rod movement was recorded other than the insertion alarm at approximately four (4) inches. Due to built-in errors, rod movement to the four (4) inch alarm point and back to the full out position does not guarantee six (6) inches total movement. The resident inspector observed the reactor operator move the control rods per procedure "DWO-1" on July 24, 1980. The operator inserted each rod six (6) inches and withdrew the rod to the original position assuring total rod movement of at least six (6) inches.

No items of noncompliance or deviations were identified.

10. Action on NRC Correspondence

The inspector held brief discussions with plant training staff to review their plans and actions pursuant to a March 28, 1980 letter from the NRC Office of Nuclear Reactor Regulation concerning licensed operator/senior operator training and requalification programs. The information being requested was in preparation according to the schedule specified.

11. Management Interview

A management interview (attended as indicated in Paragraph 1) was conducted following completion of the inspection. The inspector summarized the scope and findings of the inspection, specifically defining the one item of noncompliance.