

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

REGION III

Report No. 50-255/81-05

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: March 1-20 and 22-31, 1981

Inspectors: *DL Boyd*
for B. L. Jorgensen
DL Boyd
for J. K. Heller

4-15-81

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Approved By: *DL Boyd*
D. C. Boyd, Chief
Reactor Projects Section 1A

4-15-81

Inspection Summary

Inspection during March 1-20 and 22-31, 1981 (Report No. 50-255/81-05)

Areas Inspected: Augmented resident inspection program activities including operations; surveillance; maintenance; reportable events; IE Bulletins and followup on previously identified items. The inspection involved a total of 206 inspector-hours onsite by two NRC inspectors including 88 inspector-hours onsite during off-shifts.

Results: No items of noncompliance were identified in the areas inspected.

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DETAILS

1. Persons Contacted

- *R. W. Montross, General Manager
- *J. S. Rang, Operations/Maintenance Superintendent
- *H. J. Palmer, Technical Superintendent
- *G. H. R. Petitjean, Technical Engineer
 - B. L. Schaner, Operations Supervisor
 - G. W. Ford, Senior Engineer (STA)
 - D. L. Morse, Assistant Mechanical Maintenance Supervisor
 - D. W. Langschwager, Shift Supervisor
 - A. F. Brookhouse, Shift Supervisor
 - S. Ghidotti, Shift Supervisor
 - A. S. Kanicki, Shift Supervisor
 - D. W. Kaupa, Shift Supervisor
 - E. I. Thompson, Shift Supervisor
 - E. Polk, Assistant Mechanical Maintenance Supervisor
 - W. E. Adams, Senior Engineer (STA)
- *M. H. Okley, Quality Assurance Analysis
- *S. Frost, Licensing Engineer (Jackson, MI Home Office)

*Denotes those present at Management Interview.

Numerous other members of the plant Operations/Maintenance, Technical, and Chemistry/Health Physics staff were also contacted briefly.

2. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of March 1981. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of auxiliary and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fire extinguisher verified operable and in place, 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. A tour of the security fence was conducted.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the month of March 1981, the inspector walked down the accessible portions of the Component Cooling Water system to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under Technical Specifications, 10 CFR, and administrative procedures.

The plant operated at essentially full power throughout the month of March 1981, under the provisions of an NRC Immediate Action Letter (IAL) dated January 9, 1981, which was replaced by an NRC Confirmatory Order dated March 10, 1981. Adherence to the IAL and Confirmatory Order was verified on a routine basis. Provisions to delete items in the order were discussed with plant management during the monthly exit interview.

A conference call between NRC Region III, Consumers Power Company and the NRC office of Nuclear Reactor Regulation was held on March 27, 1981 to discuss inoperable snubbers.^{1/ 2/} The plant agreed (NRR concurred) to immediately implement the requirements of Combustion Engineering Standard Technical Specification 3/4.7.9 dated October 17, 1980. Consumers Power Company will submit a formal change to the Palisades Technical Specification at a later date.

No items of noncompliance or deviations were identified.

3. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were 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.

- a. MO 81-CIS-001 Repair of personnel airlock outer door handwheel
- b. MO 81-EPS-014 Monthly preventive maintenance on emergency diesel generator
- c. MO-81-CCS-005 Hot alignment of component cooling water pump P-52C
- d. MO 81-CVC-017 Repair of boric acid pump recirculation valve CV-2136
- e. MO 51-ESS-003 Repair of safety injection accumulator pressure control valve CV-3038
- f. MO 81-ESS-028 Repair and recalibration of safety injection accumulator level transmitter LT-0372
- g. MO 81-ESS-032 Calibration of safety injection accumulator pressure indicator/alarm PIA-0371

1/ IE Inspection Report No. 50-255/80-15.

2/ IE Inspection Report No. 50-255/80-24.

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.

The inspector noted for MO 81-EPS-014 that signoffs provided on the controlling forms to indicate shift supervisor notification/authorization were not completed. This activity consists basically of an inspection of the emergency diesel and does not render any components inoperable or otherwise change the condition of components. The plant Administrative Procedures clearly require involvement of the shift supervisor when installed plant equipment is to be made inoperable or its condition is otherwise altered by or for maintenance, but are less clear concerning activities of the type discussed here. Some clarification in this area is deemed necessary, particularly since the NRC Order of March 10, 1981 (issued after MO 81-EPS-014 was completed) addresses shift supervisor notification for testing activities, some of which also do not alter or render the subject components inoperable. This matter will be reviewed further during a future inspection.

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:

- a. Changeout of overspeed trip switch on EDG 1-1
- b. Calibration of instrumentation associated with EDG 1-2
- d. Changeout of I-to-I package for subcooled margin monitor

Following completion of maintenance on the above systems, 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 systems/components identified below and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified

during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector witnessed portions of the following test activities:

- MO-7A Emergency Diesels
- MO-7C Fire Pumps P-9A, P-9B and P-41
- MO-8 Primary and Secondary Computers PDIL Check and Control Rod Out of Sequence Alarm
- MO-16 Inservice Test Procedure-Service Water Pumps
- MO-11 Safeguards Boron Samples
- MO-21 Inservice Pump Test-Concentrated Boric Acid
- MO-22 Inservice Test Procedure: High Pressure Safety Injection Pumps
- QO-5 Valve Test Procedure (includes Containment Isolation Valves)

Completed data for several tests performed in February 1981 were reviewed. Minor deficiencies in the form of incomplete signoffs (missing dates) were noted in monthly Technical Specification Surveillance Tests MO-7B, "Fire Pumps P-9A, P-9B, and P-41" and MC 11, "Safeguards Boron Sample." Additionally, the inspector questioned the need to attach a calibration sheet of FI-0404A to monthly Technical Specification Surveillance Test MO-19, "Inservice Test of Containment Spray Pumps." These items were discussed with licensee personnel at the monthly exit interview.

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.

- a. (Closed) LER 80-34 and LER 80-39 "Inadequate Surveillance Procedure." Licensee review of QO8, "ESS Check Valve Operability Test" and QO-05, "Valve Test Procedure (includes Containment Isolation Valves)" determined that these procedures required manipulation of valves that would make a train of engineering safeguards equipment (ESF) inoperable or could damage ESF pumps if a safety injection signal (SIS) occurred coincident with valve testing. QO-8 required closing and reopening of the Safety Injection Refueling Water (SIRW) tank outlet valves when determining the operability of the containment sump outlet check valves. Manipulation of these valves at hot

shutdown, as allowed by QO-08, would disable a train of safeguards equipment. QO-05 required stroking of the SIRW tank minimum flow recirculation valves. Stroking of these valves coincident with an SIS could result in damage to ESF pumps. QO-08 and QO-05 have been revised to delete manipulation of the valves. The valves have been added to QO-02 "Recirculation Actuation System and Containment Sump check valves" which requires, as a prerequisite, the plant to be in cold or refueling shutdown.

- b. (Closed) LER 80-41 "Diesel Generator/Charging Pump Inoperable." With charging pump P-55C (associated with emergency diesel 1-1) inoperable, shift supervisor permitted emergency diesel 1-2 to be removed from service to perform the second cylinder leak test.
- c. (Closed) LER 80-042 "Steam Generator (S/G) Primary to Secondary Differential Pressure Limit Exceeded." During plant cooldown the S/G differential pressure limit of Technical Specification 3.1.1.e was exceeded for approximately 85 minutes. The operator performing the cooldown did not observe the out of specification condition. Upon discovery, Primary Coolant System pressure was reduced to return differential pressure limit to within limits. Secondary water analysis and stress calculations were performed to assure that S/G tube integrity was maintained. Shift personnel involved were counseled and/or disciplinary action was taken.

6. IE Bulletin Followup

For the IE Bulletins listed below the inspector verified that the written response was within the time period stated in the bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presentation in the bulletin and the licensee's response, that licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response.

- a. (Closed) IE Bulletin 79-10, "Requalification Training Program Statistics." The licensee's letter dated May 23, 1979 provides the statistical data requested in the Bulletin, in the format as provided for by the Bulletin attachment. The requalification training program is routinely subject to NRC inspection.
- b. (Closed) IE Bulletin 79-21, "Temperature Effects on Level Measurements." The licensee's letter dated September 18, 1979 addresses the Bulletin items. The licensee did not propose setpoint changes (providing justification) but procedure revisions and attendant operator training have been accomplished. Subsequent to this response to this Bulletin, the licensee developed a design for automatic auxiliary feedwater initiation which will utilize the

steam generator level instrumentation. Consideration of the implications of this Bulletin for that system function will be a part of the system modification review.

- c. (Closed) IE Bulletin 80-15, "Possible Loss of Emergency Notification System (ENS) With Loss of Offsite Power." The licensee letter of September 4, 1980 addresses this Bulletin, clarifying the ENS power source and proposing an alternative test schedule. Procedures for notification to NRC if the ENS system is determined inoperable have been prepared.
- d. (Open) IE Bulletin 80-10, "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment." The licensee's letters of May 8, 23 and August 1, 1980 address potential clean and contaminated system interfaces; associated radioactivity monitoring, and magnitude of potential releases. The release path from the only system which has become cross-contaminated (plant heating boilers) is a controlled and monitored path. Analysis indicates even failures or tank ruptures would not lead to the exceeding of 40 CFR 190 or 10 CFR 50, Appendix I.

As part of his response, the licensee committed in his letter dated July 8, 1980, to expansion of sampling and analysis programs to include additional systems of the type addressed in the Bulletin. Implementation dates were provided. This commitment was implemented incompletely in that as of April 1, 1981, weekly sampling and analysis of the service air system (due date October ,1 1980) were not being performed. A special check of selected system components for contamination had been performed, the results showing no cross-contamination problems. Supplementation of a routine sampling program was discussed with the responsible department head, who agreed to implement this item. This will be examined in a future inspection.

No items of noncompliance or deviations were identified.

7. Followup on Previously Identified Items

Noncompliance items, IE Inspection Report No. 50-255/80-21

- a. (Closed) Item 1: Welding on the T-25B fuel oil day tank with no firewatch present at the scene.
- b. (Closed) Item 2: Removal from service of emergency diesel generator 1-2 when charging pump P-55C (associated with the other diesel generator) was inoperable. (See Paragraph 5, LER 80-041).
- c. (Closed) Item 3: During plant cooldown, the steam generator tube differential pressure was exceeded for approximately 85 minutes. (See Paragraph 5, LER 80-042)

The licensee's actions as stated for the above in his letter dated December 16, 1980 were verified and considered appropriate. Additionally, for Item 1, the resident inspector has observed that the requirement for use of a firewatch is being complied with and that a firewatch, on February 25, 1981, took immediate action to extinguish a small fire in the auxiliary building.

8. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection and summarized the scope and findings of the inspection activities.