

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/82-23(DPRP)

Docket No. 50-255

License No. DPR-20

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

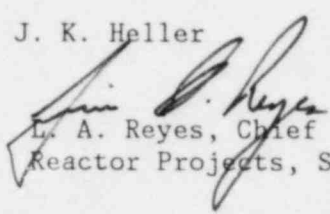
Facility Name: Palisades Nuclear Generating Plant

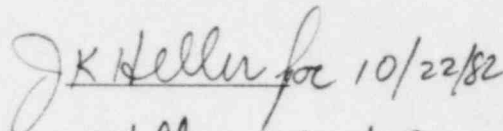
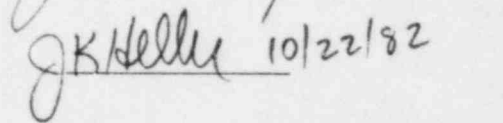
Inspection At: Palisades Site, Covert, MI

Inspection Conducted: September 1-30, 1982

Inspectors: B. L. Jorgensen

J. K. Heller

Approved By:  L. A. Reyes, Chief
Reactor Projects, Section 2B

 J. K. Heller for 10/22/82
 J. K. Heller 10/22/82

10/22/82

Inspection Summary

Inspection on September 1-30, 1982 (Report No. 50-255/82-23(DPRP))

Areas Inspected: Routine resident inspection program activities including: Operational Safety Verification; Monthly Maintenance Observation; Monthly Surveillance Observation; Plant Trip Review; Reportable Events; Procedures; Organization and Administration; and Independent Inspection Effort (medical drill, fire drill and security allegations). The inspection involved a total of 178 inspector-hours onsite by two NRC inspectors including 39 inspector-hours onsite during off-shifts.

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

DETAILS

1. Persons Contacted

R. W. Montross, General Manager
*J. S. Rang, Operations/Maintenance Superintendent
*C. H. Gilmer, Technical Superintendent
W. S. Skibitsky, Operations Superintendent
*D. W. Rogers, Licensing Analyst
K. M. Farr, Nuclear Plant Public Affairs Director
P. J. Stoner, General Health Physicist
*K. E. Osborne, Maintenance Superintendent
B. L. Schaner, Operations Supervisor
D. W. Kaupa, Shift Supervisor
W. M. Hodge, Plant Property Protection Supervisor
W. E. Adams, Senior Engineer
R. A. Fenech, Senior Engineer
P. L. Wick, Document Control Supervisor
D. M. King, Planning and Scheduling Administrator
*J. A. Greenwood, Quality Assurance Administrator
*R. M. Krich, Technical Engineer
E. A. Dziedzic, Training Supervisor

*Denotes those present at Management Interview on October 7, 1982.

Numerous other members of the plant staff were 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 September, 1982. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the auxiliary and turbine buildings 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.

On September 15, 1982, the "A" containment spray pump was declared inoperable and the required actions of the Technical Specification performed. The inspector confirmed this by review of the status board and discussion with the operation crew on shift. The inspector read the Shift Supervisor log and could not find documentation that the action had been performed. The inspector concern for lack of documentation was discussed with the Operation Supervisor who had identified the same problem during his review of the logs and had taken appropriate action.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. Following return of the plant to normal operation early in the month, good

progress was made on improving plant housekeeping conditions. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling, and independently surveyed two radwaste trucks awaiting shipment.

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.

No items of noncompliance or deviations were identified.

3. Plant Trip

The reactor tripped from approximately 40% power at 8:36 a.m. on September 4, 1982. An operator made a valving error in the turbine oil system that isolated the turbine. Reactor trip followed, from the resulting pressurizer high pressure. The plant had been taken to approximately 40% power the previous shift to allow maintenance work on the secondary side. The inspector ascertained the status of the reactor and safety systems by review 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 taken critical at 1:51 p.m. on September 4, 1982.

No items of noncompliance or deviations were identified.

4. Monthly Surveillance Observation

The inspector reviewed documentation for Technical Specifications required surveillance testing on numerous systems tested during July and August, 1982, 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 was accomplished, that test results conformed with Technical Specifications and procedure requirements were reviewed by personnel other than the individual directing the test, and that deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

In one case, the inspector identified a test deficiency which the licensee had not noted. During testing of the Low Pressure Safety Injection Pump P-67B under procedure MO-23 in July, 1982, pump performance was in the "Alert" range such that the test interval should have been halved. The licensee did not recognize this condition, nor was the surveillance schedule appropriately adjusted. When the retest came due, however, the plant happened to be out of service. Thus, no testing was required and no violation of test frequency

specifications actually resulted. The component was properly tested when the plant was returned to operation. The oversight was discussed with the test engineers and was noted at the management interview as a counterexample to the careful licensee data review observed over about the past year.

The inspector also witnessed portions of the following test activities:

- a. SWSO-2 Setting of mechanical "stops" on CCW heat exchanger service water outlet valves.
- b. T-152 Special test of heat buildup in the auxiliary feedwater pump room to determine the effects of (and possible mitigating actions for) loss of room ventilation. This test was performed in part to satisfy commitments to NRC evolving from the Systematic Evaluation Program (SEP) integrated assessment. The SEP identified a need for information on various system/component performance capabilities on loss of heating, ventilation, or air conditioning, since these systems at Palisades are not "safety grade."
- c. EM-04-02 Quadrant Power Tilt.

No items of noncompliance or deviations were identified.

5. Monthly Maintenance Observation

Station maintenance or construction activities of systems and components listed below 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:

- a. Troubleshooting turbine governor valve control circuitry.
- b. Replacement of one channel-segment of the boric acid heat tracing system.

- c. Replacement of CCW heat exchanger service water outlet valve CV-0823.
- d. Piping installation for auxiliary feedwater modification Phase 2.
- e. Calibration of power ratio recorder.

Following completion of maintenance on the service water and boric acid heat tracing systems, the inspector verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified.

6. 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 81-41 "Degradation of Fuel Cladding." During fuel inspection conducted subsequent to refueling, four defects were found in the cladding of one fuel rod. The most significant was a hole measuring approximately one half inch in length and one quarter inch in width. No fuel pellets were visible in the hole. The fuel vendor categorized the failures as a single random occurrence of unidentified origin not representing a failure mode generic to their fuel.
- b. (Closed) LER 81-52 "Containment Integrity Violation." See Inspection Report 50-255/81-28 for a description of this item.
- c. (Closed) LER 82-20 "Incorrect Valve in Containment Spray System." The licensee discovered, during inspection of the containment spray, a 3/4 inch, 200 psi, threaded, bronze valve installed at MV-3415, a test tap. Specifications required a 600 psi, stainless steel, socket welded valve. The bronze valve was replaced with the correct valve which was tested and returned to service. Record review could not determine when the valve was installed. The licensee suspects the valve was installed during the 1976 surveillance program or during initial construction. Analysis established failure of the bronze valve would not have rendered the containment spray system inoperable.
- d. (Closed) LER 82-01 "Station Power to 1C Bus." While transferring electrical power from startup power to station power, the closing spring charging motor for the station power transformer supply breaker to 1C bus failed to charge. The breaker was tripped open and removed from its cubical in order to permit repairs; as a result, the station power transformer supply power to 1C bus was inoperable. The breaker closing spring linkage was dirty;

cleaning and lubrication were performed. Concrete dust resulting from construction activities is the suspected source. The licensee performed the required actions within the limits of the Technical Specifications.

No items of noncompliance or deviations were identified.

7. Procedures

Selected licensee procedures were examined during this inspection to determine technical adequacy; consistency to license requirements; proper development, review, approval, and revision. Various controlled copies of the procedures were verified to have the latest revision posted.

a. General Plant Operating Procedures (GOP's)

- (1) GOP-3 Critical Approach From Hot Shutdown/Standby
- (2) GOP-9 Plant Cooldown From Hot Standby/Shutdown

Integrated Plant Safety Assessment (NUREG-0820) Paragraph 4.16.1, "Overpressurization Protection of Shutdown Cooling System" requested the licensee to place low temperature overpressurization protection in operation prior to placing shutdown cooling in operation and submit a Technical Specification revision by July 30, 1982. The inspector verified that GOP-9 requires operability of the low temperature overpressurization prior to placing shutdown cooling in operation and that a Technical Specification revision was submitted on July 29, 1982.

b. Standard Operating Procedures (SOP's)

- (1) SOP-2A Chemical and Volume Control System, Charging and Letdown, and Concentrated Boric Acid
- (2) SOP-4 Containment Spray and Iodine Removal System
- (3) SOP-17 Liquid Radioactive Waste System (Clean and Dirty)
- (4) SOP-20 High-Pressure Control Air System for Air-Operated Valves
- (5) SOP-24 Ventilation and Air Conditioning System
- (6) SOP-27 Fuel Pool System

c. Emergency Operating Procedures (EOP's)

- (1) EOP-4 Loss of Component Cooling
- (2) EOP-9 Fuel Handling Accident

- (3) EOP-3 Loss of Service Water
- (4) EOP-12 Abnormal Release of Radioactivity

d. Annunciator and Actions (D)

- (1) D1.7 Auxiliary Systems
- (2) D1.8 Safeguard Safety Injection and Isolation
- (3) D1.9 Radwaste C-40 Panel
- (4) D1.25 Ventilation and Iodine Removal Heat Tracing

A comparison of the alarm setpoint of selected annunciators of D1.7, 1.8, and 1.9 against the instrument index (M-311) and the instrument calibration sheets was made. The inspector found examples where the alarm response procedures referenced the wrong instrument or stated an instrument setpoint that was in disagreement with the latest revision of M-311 and the correct instrument calibration sheet. This item was discussed with the Operations Superintendent and he informed the inspector that similar problems had been previously identified. As a result, a rewrite of the alarm response procedures was in process. The inspector discussed this with the Assistant Shift Supervisor assigned to rewrite the alarm response procedures and determined that the guidelines he was using would correct the problems identified by the inspector.

No items of noncompliance or deviations were identified.

8. Organization and Administration

The inspector verified that licensee organization changes during the past year have been reported to the NRC as required. The inspector also verified that persons assigned to new or different positions in the licensee's organization over about the past year satisfy qualifications identified in ANSI N18.1-1971 as required by plant Technical Specifications. This review specifically included assignments involving the positions of Technical Superintendent, Maintenance Superintendent, Chemistry/Health Physics Superintendent, and Reactor Engineer.

The inspector also verified training and qualifications of the current complement of Shift Technical Advisors against the specifications of NUREG-0737. A few minor documentation inconsistencies were noted by the inspectors. The licensee's Training Department corrected the appropriate documents. The document changes did not affect the licensee's personnel qualifications.

No items of noncompliance or deviations were identified.

9. Miscellaneous Inspection Activities

On September 28, 1982, the licensee conducted an emergency medical drill involving simulated personnel injuries and area contamination. The drill was observed by the inspector, who also subsequently attended a preliminary evaluation critique. Inspector observations were specifically identified to responsible licensee personnel. All these observations except one were independently identified by licensee-assigned observers and were reviewed briefly at the critique session. The licensee planned to collect detailed written reports from his observers for further evaluation and appropriate action.

On September 14, 1982, the inspector observed an unannounced fire drill involving a simulated fire at the plant heating boilers. No problems were noted.

On two occasions during September 1982, the inspector received anonymous telephone calls alleging improper security force activities. The inspectors reviewed the activities alleged to be conducted improperly. One of the incidents was verified as having occurred, but adequate corrective action had been taken and the incident was minor in nature. The second incident was not substantiated. This item was forwarded to the Region III Safeguards Section for further review.

These matters were discussed at the management interview.

No items of noncompliance or deviations were identified.

10. Management Interview

A management interview (attended as indicated in Paragraph 1) was conducted following completion of the inspection on October 7, 1982. The following were discussed with licensee representatives:

- a. The scope and findings of the inspection were summarized.
- b. The receipt and review of anonymous security allegations were discussed (Paragraph 9).
- c. The inspector noted an instance of out-of-specification test data had been overlooked by licensee personnel which could have resulted in failure to comply to re-test frequency requirements (Paragraph 4).