

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/82-19(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: July 1982

Inspectors: *K.R. Ridgway*
B. L. Jorgensen

8/16/82

K.R. Ridgway
J. K. Helfer

8/16/82

Approved By: *K.R. Ridgway*
D. C. Boyd, Chief,
Reactor Projects, Section 1A

8/16/82

Inspection Summary

Inspection during July 1982 (Report No. 50-255/82-19(DPRP))

Areas Inspected: Routine resident inspection program activities including: plant trip; activities during long-term shutdown; reportable events; and open inspection items. The inspection involved a total of 101 inspector-hours onsite by two NRC inspectors including 19 inspector-hours onsite during off-shifts.

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

DETAILS

1. Persons Contacted

*R. W. Montross, General Manager
J. S. Rang, Operations/Maintenance Superintendent
C. H. Gilmore, Maintenance Superintendent
W. S. Skibitsky, Operations Superintendent
*G. H. R. Petitjean, Technical Engineer
D. W. Rogers, Licensing Analyst
D. L. Beach, Senior Plant Technical Analyst
K. M. Farr, Nuclear Plant Public Affairs Director
P. J. Stoner, General Health Physicist
R. A. Delong, Associate Health Physicist
K. E. Osborne, Supervisory Engineer
W. E. Adams, Senior Engineer
D. M. Kennedy, General Engineer
B. L. Schaner, Operations Supervisor
E. I. Thompson, Shift Supervisor
W. M. Hodge, Plant Property Protection Supervisor
D. P. Spry, Property Protection Advisor
P. L. Wick, Document Control Supervisor
D. M. King, Planning and Scheduling Administrator
R. A. Fenech, Senior Engineer
*R. L. McCalib, Quality Assurance Superintendent

*Denotes those present at Management Interview on August 4, 1982.

Numerous other members of the plant staff were contacted briefly.

2. Plant Trips

The reactor was manually tripped from 43% power at 1720 hours on July 11, 1982, when an operator found the "B" cooling tower pump motor smoking. The "A" cooling tower pump had been taken out of service and plant power reduced on July 10, 1982. 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, that safety systems responded as expected and reviewed the corrective actions taken by the licensee. The plant is scheduled to return to service in mid-August.

No items of noncompliance or deviations were identified.

3. Inspection During Long Term Shutdown

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of July 1982. The inspector reviewed tagout records, and verified applicability of containment integrity. Tours of containment, auxiliary,

and turbine building accessible areas were made to make independent assessments of equipment conditions, plant conditions, radiological controls, safety, and adherence to regulatory requirements and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector observed plant housekeeping/cleanliness conditions, including potential fire hazards, and verified implementation of radiation protection controls. 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 verified portions of the radioactive waste systems controls associated with radwaste shipments and barreling, by independent survey of two radwaste trucks awaiting shipment.

A tour of fire protection equipment identified a broken "gated-wye" valve and an obstructed hydrant station. These items were discussed with and resolved by the Property Protection Advisor, as verified by subsequent re-inspection.

During a tour of the containment building, the following were noted:

- a. boric acid crystals formed off PT-0346
- b. broken support strap on purge supply duct
- c. boric acid crystals on and around excore nuclear instrument wells

The first two items were referred to the appropriate licensee personnel for action. The licensee independently identified the third item for action.

Miscellaneous activities also observed during the outage included: forklift training for operators; control room electrical penetration foam sealing; concrete pour for the auxiliary building addition; and a number of repair activities associated with the cooling tower pumps.

No items of noncompliance or deviations were identified.

4. 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-79-15 "Pipe Support Analysis Error." A contractor determined that an error existed in a computer code which was used on the seismic analysis of fourteen safety related pipelines. The licensee made corrective modifications prior to completion of the 1979 refueling outage.

- b. (Closed) LER-80-01 "System Stress Analysis." See IEB 79-14 (Closed in IE IR 80-15) for a discussion of this item.
- c. (Closed) LER-80-03 "Containment Spray." During review of Systematic Evaluation Program Topic VI-3, "High Energy Line Break", the licensee determined that incorrect assumptions for initiation of containment spray, as well as inaccuracies in Steam Generator mass-energy-inventories, resulted in predicted peak containment pressures being lower than actual.

Errors were apparently made during initial accident analysis. Corrective action was taken to reduce spray initiation time, and to reduce mass energy released into containment following a main steam line break.

- d. (Closed) LER-80-37 "Pipe Support Sway Struts." A contractor identified to the licensee that pipe support struts furnished by Corner and Lada Inc. have the potential of the bushing becoming loose and/or disengaged from the clamp end of the sway strut. The licensee had a contractor inspect these sway struts and fix those requiring repair. The NRC Division of Reactor Operation Inspection has requested the Division of Reactor Construction Inspection, in a letter dated November 4, 1980, to investigate the generic applicability of this item.
- e. (Closed) LER-81-51 "Snubber Failure." During Technical Specification required surveillance of safety-related snubbers, six were declared inoperable because of no visible oil level. The snubbers were either rebuilt and retested or replaced with snubbers from stock. The oil leakage was because of failed "O"-rings. The licensee has established a preventive maintenance program to replace "O"-rings at least once every five years.
- f. (Closed) LER-81-81 "Containment Integrity Violation." During a containment entry through the personnel air lock, plant personnel opened both doors; resulting in a loss of containment integrity that lasted for approximately one minute. The interlock mechanism which is intended to prevent simultaneous opening of both doors was found inoperable due to a broken shear pin. The shear pin was replaced and the interlock mechanism returned to service. The licensee has posted signs at the doors instructing personnel to assure the other door is closed. Additionally, door positioning lights were made operable.
- g. (Closed) LER-82-02 "Automatic Initiation of Auxiliary Feedwater." During Technical Specification required testing, the auxiliary feedwater flow control valve auto controls were declared inoperable when one valve had excessive opening times and the other would not control to the desired flow. The valve controllers were placed in manual and the valves positioned for desired flow. The flow controllers were found out of adjustment; adjustments were made and operability restored.

- h. (Closed) LER-82-06 "Condensate Inventory Less Than Technical Specification Required Minimum." On two occasions in January 1982, the condensate inventory fell below the required Technical Specification minimum. Both instances resulted when the plant was being held in hot shutdown and equipment problems made the makeup system unavailable.
- i. (Closed) LER-82-09 "Inoperable Diesel Generator." During Technical Specification surveillance of 1-1 Diesel Generator, load swings were observed. The load swings were caused by a defective governor control and actuator unit; both were replaced.

5. Previously Identified Items

The inspector reviewed licensee actions to resolve items identified in previous inspections as follows:

- a. (Closed) Unresolved Item (255/80-18-01): Compliance to 10 CFR 50.59 for review and recordkeeping on procedure changes. The licensee revised his Administrative Procedure governing this activity to provide for use of a specific "safety evaluation" form in procedure revision, and for retention of associated records; such that the referenced requirements are clearly met.
- b. (Closed) Open Inspection Item (255/82-08-01): Reactor critical with cold-leg temperature below 525 degrees. The licensee completed an evaluation (reviewed by the inspector) showing cold-leg temperature is not the parameter of concern in the 525-degree limit. The plant is analysed for operation in this condition (T-cold below 525), though current practice and procedures no longer contemplate it.

No items of noncompliance or deviations were identified.

6. Management Interview

A management interview (attended as indicated in Paragraph 1) was conducted following completion of the inspection on August 4, 1982. The inspector summarized the scope and findings of the inspection as described in these Details.