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

REGION III

Report No. 50-255/80-15

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: August 4-8, 11, 12, 14, 15, 18-22 and 25-29, 1980

Inspectors: for D. C. Boyd B. L. Jorgensen 9-23-80

for D. C. Boyd J. K. Heller 9-23-80

Approved by: D. C. Boyd D. C. Boyd, Chief 9-23-80
Reactor Projects, Section 4

Inspection Summary

Inspection during August 4-8, 11, 12, 14, 15, 18-22 and 25-29, 1980 (Report No. 050-255/80-15)
Areas Inspected: Routine monthly resident inspection program activities including: operational safety; maintenance; surveillance; reportable events; IE Bulletins and Circulars; plant trip; current regulatory items; and followup on previously identified items. The inspection involved a total of 223 inspector-hours onsite by two NRC inspectors including 38 inspector-hours onsite during off-shifts.
Results: Of the eight areas inspected, no items of noncompliance were identified in seven areas. Two items (Infraction - plant operation with two inoperable safety-related snubbers - Paragraph 5; Deficiency reporting requirements not met - Paragraph 5) were identified in the remaining one area.

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DETAILS

1. Persons Contacted

*R. W. Montross, General Manager
*H. W. Keiser, Operations and Maintenance Superintendent
*H. J. Palmer, Technical Superintendent
*W. S. Skibitsky, Operations Superintendent
*R. E. McCaleb, Quality Assurance Administrator
*J. L. McVay, Administrative Supervisor
G. H. R. Petitjean, Technical Engineer
F. G. Butler, Senior Engineer
C. H. Gilmor, Maintenance Superintendent
K. M. Farr, Public Affairs Director
B. L. Schaner, Operations Supervisor
A. S. Kanicki, Shift Supervisor
D. W. Langschwager, Shift Supervisor
E. I. Thompson, Shift Supervisor
R. S. Cater, Control Operator

Other members of the operations, maintenance and technical staffs were also contacted briefly.

*Denotes those present at management interview August 29, 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 August, 1980. 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, reactor, 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. 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, including inside containment, which was accessible during part of the month, and verified implementation of radiation protection controls.

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. Monthly Maintenance Observation

Station maintenance activities of safety related 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.

The following maintenance activities were observed/reviewed:

a. Replacement of control rod drive motor package.

b. Control rod drive seal changeout (four seal packages).

c. Replacement of inoperable snubbers.

d. Emergency diesel preventive maintenance.

Following completion of maintenance on the control rod drive system and the emergency diesels, 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 sytems or 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 all or part of the following test activities:

MO-16 "Inservice Test Procedure - Service Water Pumps"
MO-18 "Inservice Test Procedure - Component Cooling Pumps"
MO-22 "Inservice Test Procedure - High Pressure Safety Injection Pumps"
QO-01 "Safety Injection System"

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. LER 80-013: High Pressure Safety Injection Flow Transmitter Inoperable.
This item is discussed in Paragraph 10 of this report. This item is closed.

b. LER 80-020: Misaligned Control Rod. Control Rod number 39 became misaligned from the remaining rods in its group when it drove in approximately 39 inches following biweekly movement of the control rods. Immediate action consisted of halting rod inward movement, manual exercising of the Control rod drive mechanism (CRDM) contactors, and withdrawing the rod to its required position. Cause of this occurrence is attributed to dirt in the relay armatures and up/down contactors. The contactors and armatures were cleaned and lubricated. A procedure to clean and lubricate the contactors and armatures on a refueling cycle is being prepared. This item is closed.

c. LER 80-23: Inoperable Containment High Radiation Monitors. Prior to plant startup, on 10 July 1980, 2 of 4 containment high radiation detectors were determined to be reading high and declared inoperable. As required by Technical Specification, one of the inoperable detectors was placed in the tripped position before continuing with startup and declared operable. This item is closed.

d. LER 80-24: Diesel Generator and 2 of 3 Charging Pumps Inoperable. The licensee made one of the diesel generators and 1 of 3 charging pumps inoperable for modifications and repairs. This condition is

permitted by the Technical Specifications. The second charging pump became inoperable and put the plant in an action statement requiring shutdown in the next 12 hours. Modifications to the diesel were completed and the diesel declared operable in approximately 2 hours putting the plant in a condition requiring shutdown in 34 more hours. Repairs to one of the charging pumps were completed in approximately 20 hours and the plant put in a condition permitted by Technical Specifications. The licensee took appropriate actions to meet all conditions of the Technical Specifications during this occurrence. This item is closed.

No items of noncompliance or deviations were identified.

e. During a review of event reports, maintenance orders (M.O.'s), shift logs and equipment outage requests (EOR) to close LER's 80-14, 15, 16 and 18, all pertaining to failed snubbers, the inspector identified that on 12 May 1980 at 1400 hr (CST) two safety related snubbers (Nos. 5 & 9) located on the main steam lines were declared inoperable when the plant was above cold shutdown conditions. The EOR shows snubber No. 5 was declared inoperable for 69-1/2 hours and snubber No. 9 was declared inoperable for 93-1/4 hours. The EOR for snubber No. 9 shows the work was completed in 8 hours but the required administrative review was not completed for an additional 85-1/2 hours. Additionally, the EOR's for both snubbers have a limitation placed by the operations supervisor requiring either snubber No. 9 or No. 5 to be made operable by 0800 hours on 5/13/80 or immediate cooldown must begin at that time. The above action was not performed.

The limiting condition of operation (LCO) for the Technical Specification (T.S.) 3.20 permits plant operation of 72 hours with a snubber inoperable. If the snubber is not repaired or replaced within the required 72 hours, an orderly shutdown shall be initiated and the reactor shall be in cold shutdown condition within 36 hours. The licensee did not restore at least one snubber to operability to(reestablish the plant in a condition permitted by Technical Specifications) or place the plant in cold shutdown conditions (to conform to the action statement of the Technical Specifications) within 36 hours. This is an item of noncompliance with NRC requirements and is classified as an infraction.

Technical Specification 6.9.2.a(2) requires notification within 24 hours for a condition leading to operation with any parameter subject to an LCO less conservative than the least conservative aspect of the LCO. Contrary to T.S. 6.9.2.a(2) notification was not made within 24 hours after the least conservative aspect of T.S. 3.20 was exceeded on 12 May 1980 by operating above cold shutdown with two inoperable safety related snubbers.

The EOR and MO records identify a safety related snubber (No. 12) located on the main steam line which was declared inoperable on 9 May 1980 at 1400 hours and declared operable on 12 May 1980 at 1500 hours. The shift logs reveal the plant was heated above cold shutdown conditions on 10 May 1980 at approximately 0500 hours. Heatup above cold shutdown conditions with a snubber inoperable is a degraded mode permitted by the LCO for T.S. 3.20. Technical Specification 6.9.2.b(2) requires a 30 day written report for conditions leading to operation in a degraded mode permitted by an LCO. Contrary to T.S. 6.9.2.b(2) no written report was submitted after the plant was heated above cold shutdown with a safety related snubber inoperable. The above items constituted noncompliance with NRC requirements which is classified as a deficiency.

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.

In selected instances, technical evaluation was performed by staff of the NRC Region III Office of Inspection and Enforcement and some evaluation results have been documented as noted.

I. E. Bulletin 79-02: "Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts" 1/ 2/

I. E. Bulletin 79-13: "Cracking in Feedwater System Piping" 3/

I. E. Bulletin 79-14: "Seismic Analyses For As-Built Safety-Related Piping Systems" 1/ 2/

I. E. Bulletin 79-17: "Pipe Cracks in Stagnated Borated Water Systems at PWR Plants" 3/

I. E. Bulletin 80-19: "Failures of Mercury-Wetted Matrix Relays..."

No items of noncompliance or deviations were identified.

1/ I. E. Inspection Report No. 050-255/79-12
2/ I. E. Inspection Report No. 050-255/79-18
3/ I. E. Inspection Report No. 050-255/79-14

7. IE Circular Followup

For the IE Circulars listed below, the inspector verified that the Circular was received by the licensee management, that a review for applicability was performed, and that if the circular were applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

I. E. Circular 79-13: "Replacement of Diesel Fire Pump Starting Contactors".

I. E. Circular 80-02: "Nuclear Power Plant Staff Work Hours" IE Circular 80-02 is superseded by the Eisenhut letter dated 31 July 1980.

I. E. Circular 80-04: "Securing of Threaded Locking Devices on Safety Related Equipment".

I. E. Circular 80-09: "Problems With Plant Internal Communications Systems".

I. E. Circular 80-10: "Failure to Maintain Environmental Qualification of Equipment".

No items of noncompliance or deviation were identified.

8. Plant Trips

Following the plant trip at 0342 26 August 1980, the inspector reported to the plant site and 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.

The trip was manually initiated following loss of a main condensate pump. All systems responded as expected, and the plant was returned to operation on September 1, 1980, following selected maintenance and repairs. For additional information, see also Paragraph 9 below.

No items of noncompliance or deviations were identified.

9. Action on Current Regulatory Matters

a. On August 19, 1980, the licensee reported a surveillance test had been performed earlier that day, with the plant in operation, which should have been performed only with the plant in the cold shutdown or refueling shutdown conditions. The test involved stroking valve CV-3031 to obtain opening and closing times. This

valve provides suction to one train of safety injection and containment spray pumps and is required to be open during operation. It was open before and after the test but closed a few seconds during the test.

The inspector reviewed this occurrence and provided information to be documented in another report[4/] including identification of noncompliance with requirements to adhere to selected procedures.

b. During and shortly after conduct of a surveillance test being witnessed by the inspector at approximately 0400 on 12 August 1980, an unplanned release of gaseous radioactivity occurred. The inspector observed proper immediate corrective actions, terminating the release. Subsequently, difficulties were observed in rapid quantification of the release. A review by members of an NRC Health Physics Appraisal Team, which was onsite for a routine appraisal inspection, identified deficiencies in the procedures. Further, failures to complete selected followup actions in the areas of procedures and equipment (not directly related to this event) based on TMI "Lessons Learned" task force requirements, were noted. An Immediate Action Letter (IAL) was issued 15 August 1980 stipulating completion dates for the items in question. The inspector verified compliance with the stipulations of the IAL in revising procedures and upgrading equipment.

c. A previous inspection[5/] identified a concern relating to an operating mode of the concentrated boric acid system which did not assure system single-failure protection. This can occur if all the concentrated boric acid is stored in only one of two tanks and the other tank is empty. On referral to NRC headquarters for review a determination was made that both tanks should be maintained above a predetermined level, essentially full, while required system operating limits are studied and resolved. The licensee committed on 14 August 1980 to maintain both tanks above 118 inches until this issue is settled. The inspectors verified adherence to this commitment.

d. An Immediate Action Letter (IAL) was issued 31 July 1980 stipulating actions to be taken relative to the mispositioning of valve CV-3030 from 25 July to 27 July 1980.[6/] Regulatory review of this event is documented in another report.[6/] During this inspection, the inspector verified implementation of the requirements of the IAL.

One item of noncompliance was identified in these reviews, to be documented elsewhere as indicated above. No deviations were identified.

4/ I.E. Inspection Report No. 050-255/80-12
5/ I.E. Inspection Report No. 050-255/80-10
6/ I.E. Inspection Report No. 050-255/80-12

10. Action on Previously Identified Items

(Closed) Deviation, I.E. Inspection Report 050-255/80-10: Control Room manning not per commitment. The licensee's actions as stated in his letter of 8 August 1980 were reviewed, considered adequate, and verified to have been completed.

(Closed) Noncompliance, I.E. Inspection Report 050-255/80-08: Operation with an inoperable HPSI flow instrument. The licensee's actions as stated in his letter of 23 July 1980 were reviewed, considered adequate, and verified.

(Closed) Noncompliance, I.E. Inspection Report 050-255/80-08: Plant Review Committee alternates not designated in writing. Licensee actions per his 23 July 1980 letter were reviewed, considered adequate, and verified.

(Closed) Unresolved Item, I.E. Inspection Report 050-255/80-10: Incomplete implementation of Shift Technical Advisor routine duties. Continuing review established procedural requirements for this new activity are now being completely implemented.

No items of noncompliance or deviations were identified.

11. Management Interview

A management interview (attended as indicated in Paragraph 1) was held following completion of the inspection on August 29, 1980. Items discussed were as follows:

a. The inspectors summarized the scope and findings of the inspection.

b. Review and followup on current regulatory matters were summarized. (Paragraph 9)

c. The apparent noncompliance items were stated and discussed. The licensee indicated his previous evaluations were proper. (Paragraph 5)