U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/83-16(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: June 1 through July 4, 1983

Inspectors: B. L. Jorgensen — Date: 7/20/83

J. K. Heller — Date: 7/20/83

Approved By: D. C. Boyd, Chief,
Reactor Projects, Section 2A — Date: 7/20/83

Inspection Summary

Inspection during June 1 through July 4, 1983 (Report No. 050-255/83-16(DPRP))
Areas Inspected: Routine, unannounced inspection by resident inspectors of operational safety; surveillance; maintenance; and Plant Review Committee. The inspection involved a total of 151 inspector-hours onsite by two NRC inspectors including 32 inspector-hours onsite during off-shifts.
Results: Of the four areas inspected, no items of noncompliance or deviations were identified in two areas; one item of noncompliance was identified in the operational safety area (failure to follow fire implementing procedure - Paragraph 2) and one item of noncompliance was identified in the surveillance area (failure to follow corrective action procedure and failure to follow procedure review procedure - Paragraph 4).

DETAILS

1. Persons Contacted

*R. W. Montross, General Manager
J. S. Rang, Operations/Maintenance Superintendent
*W. P. Mullins, Chemistry/Health Physics Superintendent
K. E. Osborne, Maintenance Superintendent
C. S. Kozup, Operations Superintendent
*R. M. Krich, Technical Engineer
*C. H. Gilmor, Technical Superintendent
*R. E. McCaleb, Quality Assurance Superintendent
B. L. Schaner, Operations Supervisor
K. J. Speicher, Engineering Analyst
J. R. Lovell, Health Physicist
P. F. Bruce, Instrument/Control Engineer
D. W. Langschwager, Shift Supervisor
A. F. Brookhouse, Shift Supervisor
D. Malone, Licensing Analyst
R. J. Frigo, Shift Engineer Advisor
B. C. Bauer, Shift Engineer Advisor
B. M. Dusterhoft, Shift Engineer Advisor
A. S. Kanicki, Shift Supervisor
D. W. Kaupa, Shift Supervisor
*G. Ford, Senior Engineer (NAPO)
E. A. Dziedzic, Training Superintendent

*Denotes those present at the Management Interview on July 6, 1983.

Numerous other members of the plant Operations/Maintenance, Chemistry/Health Physics, Property Protection and Technical staffs 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 June 1983. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the turbine building, auxiliary building and protected area fence 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 made periodic observations to verify that the physical security plan was being implemented in accordance with the station security plan. On June 24, 1983, the inspector opened a vital area door (No. 306) without the use of key or card key. This was discussed with the Property Protection Supervisor who generated a corrective action document. This item will be reviewed during a subsequent inspection (Open Item 255/83-16-01).

An independent valve lineup verification was performed relating to Diesel Generator 1-1 operability using licensee checklist 22.1 and Fuel Oil transfer system operability using licensee checklist 22.2. No problems were identified.

The licensee informed the inspector that a radiological waste shipment was sent to Richland, Washington on June 10, 1983, and received at the burial site with a small crack in one concrete-filled 55 gallon drum. Contamination was present on the truck bed. Burial privileges have been suspended pending an investigation. This item will be reviewed during a subsequent inspection (Open Item 255/83-16-02).

An entry made in the reactor log book on May 24, 1983, identified that the "C" Safety Injection Tank (SIT) low pressure switch (PS 0373B) cleared after raising the cover gas pressure to 217 pounds as read on the pressure indicator (PIA 0371). The switch calibration was performed per RI-15 on September 15, 1981, at which time the switch was set to activate at 204 pounds (minimum cover gas pressure allowed by the Technical Specification is 200 pounds) and found to reset at 213 pounds. The inspector was concerned that the pressure indicator may have drifted downward allowing the plant to enter a limiting condition of operation that is not detected by the operators. This was discussed with the Operations Superintendent on June 6, 1983. The Operations Superintendent subsequently informed the inspector that observations made while sampling the "C" SIT showed that the alarm activated at 205 pounds and reset at approximately 212 pounds and that the log entry was apparently in error. Based on these observations the inspector has no more questions on this matter.

On June 4, 1983, at 5:45 a.m. a log entry was made in the Shift Supervisor log stating both hydrogen recombiners were simultaneously loaded to their motor control centers, in violation of a licensee standing order. Loading the hydrogen recombiners to their motor control centers without removing other loads could cause overload during certain accident conditions (this is discussed in Licensee Event Reports 82-44 and 83-39). The licensee notified the NRC via the Emergency Notification System (ENS). On June 6, 1983, the inspector was informed by both Glen Ellyn and Washington, D.C. offices of NRC that the person making the ENS call stated that both motor control centers were made inoperable while performing a test and that the licensee exceeded a Limiting Condition of Operation for two and one-half hours without taking action. This information did not fully represent the nature of the event. The need for stating all of the facts when using the ENS phone was discussed with the Operations Superintendent and the Technical Engineer on June 6, 1983, and at the exit interview.

On June 7, 1983, the inspector observed an individual performing a grinding operation in the component cooling water room without a second individual present as a fire watch. Significant amounts of sparks were being generated. The inspector questioned the individual and was informed that the second individual had left the room for a break. No

other individuals were present in the room. The inspector informed the Property Protection Supervisor, who investigated and generated a corrective action document. Palisades Fire Implementing Procedure at Section 7, Paragraph 5.5.3.b requires that a person familiar with fire extinquishers and fire hose operation shall be designated a fire watch and shall be present when major grinding is in progress. Adherence to the Fire Implementing procedures is a requirement of Technical Specification 6.8.1.f. Failure to adhere to these procedures, as described above, is an example of noncompliance with Technical Specification 6.8.1.f. (Noncompliance 255/83-16-03)

Procedure SHO-1 "Operator Shift Items" at Paragraph 5.1.9 requires an operator to compare the rod position output data from the Primary and Secondary Rod Position Systems for agreement within eight (8) inches. Additionally, instructions are provided to perform this step when the primary and/or secondary printers are inoperable. If a printer is inoperable, an Instrument and Control (I&C) technician is required to take manual readings for the shift engineer or shift supervisor to compare with data from the operable unit. The I&C technician records the manual readings in volts, whereas the printer records the rod position in inches. For the first part of June 1983, the secondary rod position typer was inoperable, requiring the I&C technician to take readings as described above. On June 7, 1983, when the inspector asked a crew how to convert the voltage reading to inches, a variety of answers were given. The inspector reviewed SHO-1 and found that the conversion factor was not in the procedure. An unofficial, uncontrolled graph was found taped to the secondary printer. Possible improvements to Procedure SHO-1 were discussed with the Technical Superintendent. The Technical Superintendent agreed to look into this matter.

On June 16, 1983, a licensed Senior Reactor Operator returned to duties after an absence in excess of four months. The inspector reviewed his requalification test and noted a math error in his total score. Additionally, the inspector could not find a certification sent to the Commission by an authorized representative of the facility stating that the operator's level of knowledge and understanding of facility operation and administration are satisfactory, as apparently required by 10 CFR 55, Paragraph 31.e. These items, which will be reviewed further in a future inspection, were discussed with the Training Supervisor on July 1, 1983, and were discussed at the management interview (Open Item 255/83-16-04).

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.

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

3. Maintenance

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. No. 83-CIS-0019: adjustment of inner personnel airlock door locking mechanism. This activity involved use of procedure CIS-M-2 "Adjustment/Replacement of Containment Access Penetration Gasket Seals" which, though recently revised, still specifies use of an Equipment Outage Request (EOR) form. The EOR form is no longer used for equipment control when a Maintenance Order is used. Further, Procedure CIS-M-2 called for documentation of selected test data which was not recorded, but was documented in a test procedure (DWO-13).

b. No. 83-CIS-0020: tighten leaking primary sampling system isolation valve fittings. The subject valve, CV-1911, is the outboard containment isolation valve for this system, but the work package is unclear whether the leaking fittings were inboard of the valve and thus constituted an unisolable boundary leak on assumed failure of the redundant valve, CV-1910. No pre-maintenance or post-maintenance leak tests were performed to quantify leakage. The leak test procedure (RO-32-40), which was not required to be used by the Maintenance Planner, states "...absolutely no maintenance which would affect leak rate may be performed until some 'as found' data is taken". This matter was discussed at the management interview, with emphasis on clear definition of containment isolation boundary maintenance needs, to enable proper decision making concerning the need for pre and post-maintenance leak testing.

c. No. 83-FWS-0101: correct drift in auxiliary feedwater suction pressure instrument PS-0742.

d. No. 83-NMS-0014: troubleshoot intermittent alarm on nuclear instrument NI-005 and perform NMS-I-7, "Dual Linear Power Channel Tilt Adjustment", to verify calibration.

The review also identified a few minor documentation discrepancies not affecting a determination that the work was properly performed. The inspector also noted the present Maintenance Order form contains neither requirements nor provisions to cross-reference the Radiation Work Permit

(RWP) system for maintenance performed under RWP requirements within the access controlled area. These observations and those noted above in review of specific activities were discussed at the management interview.

Following completion of maintenance on the personnel airlock inner door, the inspector verified proper return to service.

No items of noncompliance or deviations were identified.

4. Surveillance

The inspector reviewed surveillance activities to ascertain compliance to scheduling requirements. Test activities in progress were observed or reviewed to verify compliance to requirements relating to procedures, removal from and return to service, personnel qualifications, documentation, and that test results conformed with Technical Specification and procedure requirements. The following test activities were observed:

a. MO-16 Inservice Test Procedure: Service Water Pumps

b. SRO-1 Operator Shift Items: Secondary Rod position

c. QO-05 Quarterly valve stroking

d. SI-07 Check of Smoke Detectors

e. Performance Test of a Hydraulic Snubber (10 Kip)

The inspector reviewed the completed monthly surveillance tests in April and May, 1983. The following were identified and discussed with the appropriate licensee personnel.

a. The May 1983, file does not have a completed copy of MC-11, Safeguard Boron Samples, for the "A" SIT. The reactor log book shows the "A" SIT was sampled on May 17. This was discussed with the Program Administrator (Open Item 255/83-16-09).

b. The inservice test for the service water pumps (MO-16) has acceptance criteria based on a graph of service water temperature and pump discharge pressure. The graph in Procedure MO-16 was different from the graph in the supporting basis document, the latter being the same as the one sent in an October 28, 1981, letter to the NRC as an update of the inservice pump testing program. The inspector discussed this with the ISI engineer. The engineer found that the surveillance procedure was correct. He committed to update the basis document and to initiate changes to the October 28, 1981, correspondence (Open Item 255/83-16-05).

c. MO-8, "Primary and Secondary Computers - PDIL [Power Dependent Insertion Limit] checks and Control Rod Out-of-Sequence Alarm", at Paragraph 5.2.1, requires the operator to verify that delta T power calculation matches actual power ±4%, and record on table II. The delta T power (primary) recorded for April was 5.1% below actual

power and for May was 4.3% below actual power. In both cases the out-of-tolerance reading was circled in red, a maintenance order was written, the shift engineer documented a review of impact on current plant conditions, but a deviation report was not written for exceeding an administrative limit. Palisades Administrative procedure at Chapter 3.03, Paragraph 5.2, states that a deviation report shall be used to document non-reportable occurrences in accordance with the guidelines of Attachment 15. Attachment 15 identifies that a deviation report is required if Technical Specification Test results exceed administrative requirements. Adherence to Administrative Procedures is a requirement of CPC 2A, (Section 5, Paragraph 5.2.1) incorporated by reference in Technical Specification 6.8.1.a. Failure to write a deviation report when delta T power was not within tolerance of actual power is a noncompliance with the referenced requirements (Noncompliance 255/83-16-06).

d. The inspector found biannual review expiration dates of June 2, 1983, for procedure MO-3, "Reactor Protection Matrix Logic Test", and May 21, 1983, for procedure MO-7A, "Emergency Diesel Generator Operability Test". The inspector reviewed the June surveillance file and found that procedure MO-3 was performed on June 4, 1983, and procedure MO-7A was performed on June 2, 1983. This was discussed with the surveillance Program Administrator and a determination made that these were the only procedures used after the biannual review date had expired. Palisades Administrative Procedure 9.21, at Paragrpah 6.7, requires the surveillance procedures be reviewed for continued applicability prior to exceeding the two year interval. Adherence to Administrative Procedure 9.21 is a requirement of Technical Specification 6.8.1.a. Failure to perform the biannual review as described is a second example of noncompliance with Technical Specification 6.8.1.a (Noncompliance 255/83-16-07).

Technical Specification 4.6.4.a requires exercising of the Safety Injection and Refueling Water (SIRW) tank outlet valves and containment sump isolation valves at least once per 92 days. This requirement was added by Amendment No. 73 (dated January 20, 1983) which implemented a Technical Specification change request dated September 19, 1977. Exercising the SIRW tank valves would briefly make one high and one low pressure safety injection pump inoperable. Section 3.3 of the Technical Specifications does not permit more than one high or low pressure pump to be inoperable at any one time while the reactor is in power operation. The conflict between Section 3.3 and Section 4.6.4.a was discussed with the Technical Engineer and the NRC Licensing Project Manager with the recommendation that Section 4.6.4.a be changed as requested in a May 14, 1980, submittal. During a subsequent conversation, the Licensing Project Manager stated this matter had been discussed with the Consumers Power Company licensing department and appropriate changes will be made (Open Item 255/83-16-08).

One item of noncompliance and no deviations were identified.

5. Onsite Review Committee

Activities of the licensee's Plant Review Committee (PRC) were observed and reviewed to ascertain that provisions of the Technical Specifications dealing with membership, review process, frequency, and qualifications were satisfied. The inspector also independently verified PRC recommendations concerning corrective action items were implemented. The following meetings were observed/reviewed:

a. 1982 Meetings No. 82-26 through 82-46, which included four regular monthly meetings and seventeen "special" meetings to review only limited items. The inspector attended meeting 82-27 in person as a nonparticipant.

b. 1983 Meetings No. 83-01 through 83-07, which included three regular monthly meetings and four "special" meetings. The inspector attended meeting 83-04 in person as a nonparticipant.

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. The following matters were discussed.

a. The inspector summarized the scope and findings of the inspection as described in these Details.

b. The two apparent items of noncompliance were specifically reviewed (paragraphs 2 and 4).

c. The inspector emphasized the importance of providing complete, correct information when using the ENS phone system (paragraph 2).

d. Open Inspection Items identified in the area of operations inspection were specifically noted (paragraph 2).

e. Minor documentation discrepancies and other observations from review of the maintenance area were stated (paragraph 3).

f. Open Inspection Items identified in the area of surveillance testing were specifically noted (paragraph 4).