

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/87023(DRS)

Docket No. 50-255

License No. DPR-20

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

Facility Name: Palisades Nuclear Generating Plant

Inspection At: Covert, Michigan

Inspection Conducted: September 21-25, 1987

Inspectors: *F. J. Jablonski for*
H. A. Walker

10/16/87
Date

F. J. Jablonski for
T. H. Carter

10/16/87
Date

R. C. Kazmar for
R. C. Kazmar

10/16/87
Date

Approved By: *F. J. Jablonski*
F. J. Jablonski, Chief
Quality Assurance Programs
Section

10/16/87
Date

Inspection Summary

Inspection on September 21-25, 1987 (Report No. 50-255/87023(DRS))

Areas Inspected: Maintenance planning for the 1987 maintenance outage scheduled for October 2 through November 15, 1987. The inspection was performed using selected portions of inspection procedures 30703, 62700, 62702, and 92702.

Results: No violations or deviations were disclosed during this inspection.

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DETAILS

1. Persons Contacted

Consumers Power Company (CPCo)

*J. Lewis, Plant Technical Director
R. Fenech, Operations Superintendent
*G. Freeman, Planning and Scheduling Administrator
*D. Joos, Planning and Administrative Manager
*R. McCaleb, Quality Assurance Director
*R. Orosz, Engineering and Maintenance Manager
K. Osborne, Projects Superintendent
*J. Ponaranski, Site Projects Manager

*Indicates those attending the exit meeting September 25, 1987.

Other licensee personnel were contacted as a matter of routine during this inspection.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (255/85024-01C(DRP)): Failure to take prompt and effective corrective action. This item was about the lack of a maintenance trending program. During a previous inspection the applicable procedure and equipment history files were reviewed and determined to be acceptable; however, no trend reports had been issued as required by the procedure.

During this inspection the inspectors reviewed trend report DW 370 for the second quarter of 1987. Action taken on one recurring problem was also reviewed and determined to be acceptable. The inspectors determined that the corrective action described in the licensee's December 27, 1985, letter to the NRC had been taken to correct the problem and avoid further occurrence.

This item is closed.

3. Maintenance Outage Planning

This inspection was conducted to verify that the licensee had adequately planned for the maintenance outage scheduled for October 2 through November 15, 1987.

The inspection included a review of management involvement and control in the planning and scheduling of both personnel and equipment for the outage and management involvement and control in assuring quality. The inspection was performed by reviewing applicable procedures and records, conducting personnel interviews and observing work activities. Results of the inspection are documented in the following sections.

(a) Overall Planning

During discussions with licensee personnel, the inspectors were informed that significant changes had been made to improve the outage planning process since the last outage. Under the current system, planning for the outage began more than a year prior to the outage as work orders were designated and accumulated.

(1) Normal Processing

Work orders are routed to Plant Operations where decisions are made about priority of the work to be performed and whether a plant outage is required. A work order number is included on a list for a specific outage depending upon priority of the work and availability of replacement parts. A list of higher priority work orders is maintained to be worked during forced outages as the outages occur. If a forced outage doesn't occur those work orders are forwarded to the next scheduled maintenance outage.

(2) Outage Planning

Approximately four months prior to a scheduled outage, accumulation of work orders for the outage is stopped except for higher priority emergent work orders. The planning and scheduling organization begins to plan for the outage based on the work assigned to the outage. Outage planning meetings are held every two weeks beginning four months prior to the outage and moving to every week two months prior to the outage.

(3) Upcoming Outage

The inspectors reviewed the listing of work orders for work planned for the upcoming maintenance outage. There were 2004 open work orders; 835 of those were scheduled for the maintenance outage. Those work orders included both corrective and preventive maintenance items.

Specific systems have been scheduled to be out of service for specified periods during the outage to allow required work to be performed. Time requirements for the work, "windows," have been determined by coordination with the maintenance organizations. Schedules of system repair windows have been provided to the maintenance organizations so that detailed work order and manpower scheduling could be performed. Short maintenance windows have been provided on most systems to ensure that repaired systems will be returned to Plant Operations for early testing to allow time for repair of problems detected during testing. As expected, a listing of the outage work appeared to be heavily loaded in the early

portions of the outage with little work toward the end which allows time for emergent work with some schedule slippage if necessary.

A listing of all CPCo commitments to the NRC are maintained by the plant licensing organization. A listing of the commitments for the 1987 maintenance outage was provided to planning and scheduling who has the responsibility for including those commitments in the outage schedule. The sample reviewed by the inspectors indicated this action was satisfactory.

(4) Planning Documents

The inspectors reviewed three documents prepared for the 1987 maintenance outage and discussed the documents, as well as the planning and scheduling activities, with licensee personnel. Those documents included:

- User's Guide for Palisades Maintenance Outage 1987.
- Palisades Plant 1987 Maintenance Outage Objectives.
- Work Order Condensed Listing.

Those documents provided the overall planning for the outage, a listing of work orders (not including emergent orders), schedules for major work, estimates of manpower requirements, and other supportive information.

Based on the inspector's review, maintenance planning and scheduling activities appeared to be properly implemented. The activities described above were specifically developed for the 1987 maintenance outage, but not covered by procedures. The inspectors were told that a draft document had been prepared and would be revised based on experience obtained during the outage. That document would be issued as a guideline for future outage planning.

(b) Maintenance

The inspectors verified that the mechanical, electrical, and instrumentation and control (I&C) maintenance organizations received overall planning information from planning and scheduling. The information included a list of work orders to be completed during the outage, maintenance windows for each system and a list of work orders on hold for parts. Each discipline uses the information to provide schedules and personnel requirements for each day during the outage. Tracking and parts status for outage work orders was being performed and recommendations or requests for schedule changes or adjustments will be made if necessary. Needs for additional personnel have been determined and arrangements made for personnel from contractors or other areas within CPCo. Training requirements have been established and training was in progress for many of the additional personnel.

For six days of the outage I&C personnel had been significantly over scheduled. With only 23 I&C technicians available, the inspectors noted that for one day, staffing requirements were as high as 54. I&C planning personnel were aware of the man loading problem and in the process of reworking the I&C schedule to correct it.

A list of work orders on hold for parts was available to the maintenance organizations for planning and tracking. The inspectors noted that there were 14 mechanical work orders scheduled for the outage that the current parts status was not known. Mechanical maintenance could not assure that the work would be performed as scheduled and there was no apparent way to adjust the schedule since the parts status was not known. This matter was discussed with licensee personnel and will be carried as an open item for review during a subsequent inspection (255/87023-01(DRS)).

(c) Projects, Engineering and Construction

The inspectors reviewed the "Projects, Engineering and Construction Outage Controls Report for the 1987 Maintenance Outage." This document described the work to be performed under the control of the Projects, Engineering & Construction (PE&C) organization which consists of most of the major maintenance and modification work. The PE&C organization will be responsible for approximately half the work performed during the outage. This work, not under the direct control of the plant, includes most of the contracted work and work performed by CPCo personnel not directly assigned to the plant.

Training requirements had been established and training was in progress for some PE&C personnel. In some cases contractors were selected because of specific expertise in a respective area. For one of the jobs, installing steam generator nozzle dams, a mock-up of the work area had been fabricated and personnel were being trained accordingly. This training should reduce radiation exposure during the job as well as improve the quality of work.

The inspector did not review day-by-day man loading plans in this area since much of the work will be performed by contractors. Based on a cursory review by the inspector, it appeared that adequate staffing requirements had been determined by the licensee.

(d) Inspection

Inspection for all work performed during the outage will be provided by CPCo QC personnel. Eight additional inspectors will be required with seven furnished by a contractor and one by CPCo from the Big Rock Point plant. Training requirements were established and training was in process.

(e) Conclusions

Planning and scheduling for the 1987 maintenance outage appeared to be adequate. The inspectors concluded that management was involved in assuring quality in that there was evidence of prior planning and assignment of priorities. The limited window concept and front loading of work should result in fewer delays at the end of the outage due to schedule slippage or equipment failures. Coordination and communication between the different organizations appeared to have resulted in a realistic maintenance outage plan. The only factors that appeared to be possible problems were the over scheduling of personnel in some areas and failure to be knowledgeable of the status of replacement parts. Both areas were being reviewed by the licensee to eliminate the potential problems.

No violations were identified.

5. Open Items

Open items are matters that have been discussed with the licensee, which will be reviewed further, and involve some action on the part of the NRC or licensee or both. An open item identified during the inspection is discussed in Section 3.(b).

6. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on September 25, 1987, and summarized the purpose, scope and findings of the inspection. The inspectors discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents or processes as proprietary.