DCD

50-255

DEC 03 1987

MEMORANDUM FOR: Charles E Norelius, Director, Division of Reactor Projects

THRU: W. G. Guldemond, Chief, Reactor Projects Branch 2

FROM: B. L. Burgess, Chief, Reactor Projects Section 2A

SUBJECT: PALISADES STATUS REPORT FOR THE PERIOD NOVEMBER 7 THROUGH NOVEMBER 20, 1987

Enclosed is the Palisades biweekly status report for the period covering November 7 through November 20, 1987. Two Resident Inspectors monitored licensee activities at the plant during this report period.

Status reports of this type are intended to provide NRC management and the public with an overview of plant activities and NRC inspection activities. Due to the overall steady performance exhibited during the maintenance outage and recently during plant startup, this will be the last Biweekly Status Report for the Palisades Nuclear Generating Plant.

Original Signed by B. L. Burgess

Bruce L. Burgess, Chief
Reactor Projects Section 2A

Enclosure: Palisades Status Report

cc w/enclosure:
Mr. Kenneth W. Berry, Director
Nuclear Licensing
David P. Hoffman, General Manager
[redacted]
Licensing Fee Management Branch
Resident Inspector, RIII
Ronald Callen, Michigan
Public Service Commission
Michigan Department of Public Health
T. V. Wambach, LMP, NRR

RIII	RIII	RIII	RIII	RIII
Burgess/cs	Guldemond	Norelius	Paperiello	Davis
11/30/87	11/30	12/2/87	12/2/87	12/2

IE-01

1/1

ENCLOSURE

PALISADES STATUS REPORT FOR THE PERIOD NOVEMBER 7 - NOVEMBER 20, 1987

1. Plant Status

As of 8:00 a.m. on November 20, 1987, Palisades was operating at 99.5% full power at normal operating temperature and pressure (560 F, 2014 psig).

2. Facility Operations Summary

Specific situations of interest are identified below.

3. Items of Special Interest

Fire Main Leak

At 10:55 a.m. on November 6, 1987, a break in an underground ten inch pipe on the fire protection system resulted in the securing of all three fire system pumps which had automatically started. The break was isolated at about 11:15 a.m. and by 11:40 a.m., the fire system was repressurized and returned to normal operating status with the exception of the isolated section. At this time, it was thought that all fire protection equipment was operable based on a review of fire system piping diagrams. However, at 5:20 p.m. on November 6, 1987, it was discovered that twelve fire hose stations and three sprinkler systems were inoperable due to isolating the break. By connecting fire hoses to a yard hydrant and the depressurized portion of the system, the fire protection system was effectively returned to service within an hour. Fire tours were commenced at 5:45 p.m. and backup fire suppression equipment was established at 11:20 p.m.

Repairs to the pipe break were completed on November 10, 1987. At the request of the NRC, a hydrostatic test of the repaired system was completed on November 11, 1987. An evaluation of the cause of the break is in progress. Preliminarily, it appears that heavy loads on the roadway over the failed pipe during the recent outage were responsible. Corrective measures also will likely include design changes intended to provide diversity for system isolation and cross connection so that a future problem requiring isolation would not result in the loss of a major portion of the system.

The twelve hour delay in establishing compensatory measures for the inoperable portion of the fire protection system was a result of two factors. First, the operators who read the piping drawing to establish isolation of the break believed that the drawing showed pipe connections where, in fact, there were none. When fire system pressure was restored, the operators presumed that the system was fully operable and did not verify that all portions of the system were, in fact, restored. It was not until an Auxiliary Operator needed water at about 5:20 p.m., that it was discovered that portions of the system were still isolated. The second delay in establishing the backup fire suppression required by

Technical Specification 3.22.2 was due to inadequate drawings and /or preplans; therefore walkdowns of the system were required to determine how best to supply backup suppression to the inoperable stations. The required number of hoses were also not immediately available to the affected areas.

The Resident Inspectors and a Regional Fire Protection Specialist will follow the licensee's investigation and corrective actions of this event.

Personnel Injury

Shortly after 5:00 p.m. on November 11, 1987, while the reactor was in hot shutdown near the end of a maintenance outage, a high pressure air system automatic oiler for a feedwater block valve operator exploded. Metal shrapnel from the exploding oiler struck two workers who were standing nearby in order to observe the operation of the feedwater block valve. One worker was hospitalized overnight for surgical removal of a piece of shrapnel from his cheek, and the other worker did not require medical treatment.

This event ended a record of over three and a half million man hours without a lost time injury at Palisades. As a temporary corrective measure, oilers similar to the one that failed were either removed and replaced with straight pipes or else covered with temporary shields. Cause of the failure is still unknown since the oiler was rated at 250 psi and the typical pressure for the high pressure air system was 180 psi. The licensee's investigation of the root cause is still in progress.

Plant Restart

The Palisades Nuclear Generating Plant concluded a scheduled 45-day maintenance outage in 43 days, 2 days ahead of schedule. The reactor went critical at 7:48 p.m., November 12, 1987. Power operation was resumed shortly thereafter and at 5:58 a.m., November 13, 1987 the plant was synchronized and tied on to the grid. Power escalation continued through the weekend reaching full power on November 17, 1987.

This outage, which began October 1, 1987, was the first specific maintenance outage for Consumer Power's Palisades Plant; the outage reflects Consumer Power's decision to accelerate their improvement program for plant material condition. The outage included the completion of such tasks as: valve work including limitorque valve operator overhaul/testing (MOVATS); containment local leak rate testing and tendon testing; atmospheric dump valve replacement; and turbine electrohydraulic fluid system upgrade.

Containment Valve Lineup Discrepancy

On November 16, 1987, operators identified a discrepancy in the existing lineup procedure MO-29 "Engineered Safeguards Lineup" which checked a containment isolation valve in the "open" position when the correct position should have been "locked closed". This procedure had been performed several times on a monthly basis while operating since the typographical error had been introduced in 1986. The licensee believes that the one inch test line valve which was found locked closed and capped was most likely being verified closed, but the checklist was erroneously initialed as being in the required open position. Reasons for this belief include: other similar containment isolation valves in the vicinity were indicated correctly on the checklist as "locked closed" and positioned as such; the valve is manipulated only during outages to perform local leak rate tests and then positioned and verified locked closed; two other lineup checklists are also performed prior to startup from lengthy outages.

Final corrective actions by the licensee are still being formulated, but at present include an operator-management working group to improve valve lineup practices and revise the lineup checklists to address human factors concerns. A complete, heavily supervised verification of the valve alignment procedure and valve alignments was conducted with no additional errors identified.

4. Changes to Period of Status Reporting

This is the seventh and last biweekly status report for Palisades, made in response to the directions of the T. E. Murley memorandum dated August 3, 1987.

5. NRC Staff Activities During the Period

Two NRC resident inspectors monitored plant operating activities between November 6 and November 20, 1987, including corrective actions for equipment problems and followup on other issues. The details of these activities can be found in Inspection Reports 255/87025 and 255/87029(DRP). A two man Region III health physics inspection was conducted on November 16 through 20, 1987. The results of the inspection are documented in Inspection Report 255/87030(DRSS). Another Region III specialist inspector was on site during the same period reviewing the licensee's action taken in response to Generic Letter 83-28 (Salem ATWOS). The inspection staff at Palisades during the report period consisted of the following:

E. R. Swanson	-	Senior Resident Inspector, Palisades
N. R. Williamsen	-	Resident Inspector, Big Rock Point
R. C. Kazmar	-	Project Inspector, Section 2A (11/17-19/87)
N. J. Timmer	-	Resident Clerical Aide