

U. S. NUCLEAR REGULATORY COMMISSION
REGION III

Report No. 50-255/89015(DRP)

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: May 9 through June 12, 1989

Inspectors: E. R. Swanson

J. K. Heller

D. A. Beckman

Approved By: *B. L. Burgess*
B. L. Burgess, Chief
Reactor Projects Section 2A

6/20/89
Date

Inspection Summary

Inspection on May 9 through June 12, 1989 (Report No. 50-255/89015(DRP))
Areas Inspected: Routine unannounced inspection by the resident inspectors of: actions on previously identified items; plant operations; maintenance; surveillance; security; information notices; and quarterly management meeting. No Safety Issues Management System (SIMS) items were reviewed.

Results: Of the seven areas inspected, no violations, deviations, open or unresolved items were identified. The plant operated routinely at 80% power during the inspection period. The inspection did not identify any notable weaknesses in the licensee's programs. Strengths were identified in the operations area in the successful identification of the cause for the excessive moisture in the instrument air system, and in the plant's continuous power operation record (105 days at the end of the inspection).

DETAILS

1. Persons Contacted

Consumers Power Company

- #D. P. Hoffman, Vice President, Nuclear Operations
- *#G. B. Slade, Plant General Manager
- *#J. G. Lewis, Technical Director
- *#R. D. Orosz, Engineering and Maintenance Manager
- *#R. M. Rice, Operations Manager
- *#W. L. Beckman, Radiological Services Manager
- * R. A. Fenech, Operations Superintendent
- H. C. Tawney, Mechanical Maintenance Superintendent
- #K. E. Osborne, System Engineering Superintendent
- #R. M. Brzezinski, I&C Superintendent
- #L. K. Kenaga, HP Superintendent
- #K. W. Berry, Director, Nuclear Licensing
- C. S. Kozup, Licensing Engineer
- * J. R. Brunet, Licensing Analyst
- #D. J. Malone, Licensing Analyst
- R. J. Frigo, Operations Staff Support Supervisor
- #B. V. Van Wagner, Inservice Inspection Supervisor
- #D. J. Vandewalle, Configuration Control Project Manager
- #R. B. Kasper, Electrical Maintenance Superintendent
- W. L. Roberts, Plant Projects Supervisor
- #T. C. Bordine, Plant Licensing Administrator
- K. A. Toner, Plant Projects Supervisor
- * R. P. Margol, Quality Assurance Administrator
- * T. J. Palmisano, Administration and Planning Director
- * R. A. Massa, Operations Shift Supervisor

Nuclear Regulatory Commission (NRC)

- #E. G. Greenman, Division Director, Division of Reactor Project
- #W. L. Axelson, Branch Chief, Project Branch 2
- #R. W. Cooper, Branch Chief, Engineering Branch 1
- #B. L. Burgess, Section Chief, Project Section 2A
- #F. J. Jablonski, Section Chief, Maintenance and Outage Section
- *#E. R. Swanson, Senior Resident Inspector
- *#J. K. Heller, Resident Inspector
- * D. A. Beckman, NRC Consultant

#Denotes some of those present at the Quarterly Management Meeting on May 16, 1989.

*Denotes some of those present at the Management Interview on June 13, 1989

Other members of the Plant staff, and several members of the Contract Security Force, were also contacted during the inspection period.

2. Actions on Previously Identified Items (92701, 92702, 71500)

- a. (1) (Closed) Noncompliance 255/86030-03: Low Pressure Safety Injection pump inoperable because CV-3006 was throttled.
- (2) (Closed) Noncompliance 255/86030-04: Component Cooling Water flow was inadequate.
- (3) (Closed) Noncompliance 255/86030-05: Two of four Containment Air Coolers VHX2 & 3 were inoperable because the Service Water Inlet valve was throttled. Also VHX3 was inoperable because the access cover was removed.
- (4) (Closed) Noncompliance 255/86030-06: The Service Water System had been inoperable since late 1980 or early 1981 because of inadequate flows.

Inspection Report No. 50-255/86030 identified that the violations were being considered for enforcement action and that the licensee would be notified by separate correspondence when enforcement action was decided. The licensee was informed by correspondence dated July 23, 1987, that the NRC will exercise enforcement discretion in these cases and refrain from issuing a notice of violation. In doing this, the NRC gave the licensee credit for finding the items, as a result of a correction action program implemented to resolve previously identified problems. The inspector has reviewed each item listed above and verified that each was captured by the licensee's internal corrective action program.

- b. (Closed) Open Item 255/86035-12(DRP): Replace valve CV-0521, "Steam Supply to P-8B Auxiliary Feed Water Pump". The valve was repaired during the 1988 refueling outage (reference: Inspection Report No. 50-255/88025). Inspector observations through May, 1989 found that minor, intermittent valve seat leakage was causing slow pump rotation. Although the repair was generally successful in reducing leakage additional valve adjustment appears to be necessary. This item is closed.
- c. (Closed) Open Item 255/86035-72(DRP): Revise containment spray (CS) pump surveillances to prevent making low pressure safety injection (LPSI) pumps inoperable during CS testing. Previously, the CS header isolation valves leaked through, requiring QO-16, "Inservice Test Procedure - Containment Spray Pumps," Revision 1, into an undesirable system lineup which made the same train's LPSI pump inoperable for the duration of the tests. The leaking header valves were repaired and tested per work orders 24700297 and 24700153. QO-16 was revised to change the valve lineup.
- d. (Closed) Open Item 255/86035-85(DRP): Rebuild all Limitorque valve motor operators in the plant. The Material Condition Task Force identified a broad concern regarding plant-wide reliability of the motor operators concurrently with the licensee's

development and implementation of actions in response to NRC Bulletin 85-03, "Motor Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings". As part of the Bulletin 85-03 program, the licensee had included all motor operated valves in their diagnostic testing (MOVATS) and refurbishment programs. Maintenance records for eight safety related valves were reviewed by the inspector confirming that the diagnostic testing, refurbishment, and periodic testing and maintenance were in place and appeared adequate. Prior inspection of the Bulletin 85-03 program is documented in Inspection Report No. 50-255/87028.

- e. (Closed) Open Item 255/86035-96(DRP) and Open Item 255/86035-109(DRP): Perform Q-list interpretations for Safeguards room ventilation radiation monitor sample pumps (P-1810 and P-1811) and Radwaste Ventilation Monitor (RE-1809). An initial Q-list interpretation had been done for P-1810 and P-1811 in May 1987, finding the pumps to be non-Q. Review by NRC Region III during Inspection No. 255/88020 found that determination to be incorrect because the monitors perform a post-LOCA ventilation isolation function. The Q-list interpretation was corrected and the plant equipment data base revised to show the units as Q-listed. The Material Condition Task Force recommended a Q-list interpretation be performed for RE-1809 based on prior reliability problems. The interpretation was initially performed in 1987 and revised in February 1989. The licensee's actions appeared acceptable in both cases above.
- f. (Closed) Open Item 255/86035-102(DRP): Perform Q-list interpretation and replace monitoring system for RIA-2318 Stack Gas Monitor Radiation Alarm. RIA 2318 was a backup noble gas activity monitor for RIA 2326 and was subject to Technical Specification 3.24, Table 3.24-2. A Q-list interpretation was performed in June 1987, appropriately categorizing the equipment as Q-listed. After extensive maintenance, the electronic portion of the monitor was considered reasonably reliable, however the mechanical portion (sample transport) was not. The licensee stated that this monitor is normally shutdown with RIA 2326 normally operating and that a Technical Specification Change Request was in preparation to delete RIA 2318 from the Technical Specifications. Further, the licensee has a long term radiation monitoring instrumentation upgrade program in progress with funds budgeted in the Five Year Plan for progressive replacement of the existing system through 1991.
- g. (Closed) Open Item 255/86035-114(DRP): Change operating procedures to eliminate transferring safeguards power on plant trip. The Material Condition Task Force identified a concern that switchyard reliability needed improvement to reduce the probability of losing the 2400 Volt safeguards busses during certain events. In general, the original task force recommendations involved operating with the safeguards busses on startup power (vice station power) to avoid challenging the unreliable fast transfer circuits. Since the task force item was

issued, substantial modifications to the switchyard have been made (for other reasons) and others are planned, invalidating the original Material Condition Task Force item. The switchyard and bus transfer scheme modifications are being administered under the station blackout design review and upgrade program and includes NRC involvement. This item is administratively closed. The licensee's ongoing activities will be reviewed as part of the routine NRC inspection and licensing activities

- h. (Open) Open Item 255/86035-125(DRP): Complete Material Condition Task Force recommended repairs and modifications to turbine generator stop valve bypass air pilot valves (CV-0569, CV-0571, CV-0573, and CV-0575) to improve reliability. The pilot valves are operated by linkages from the main turbine stop valves and control the air operated stop valve bypass valves. Two problems had been identified: 1) flimsy stem guides and spring assemblies, and 2) improper reassembly by the craft. The valves were successfully modified and correctly reassembled during the 1986 outage. On April 24, 1989, the inspector found that CV-0671 had been caution tagged by the operators indicating that the valve was again leaking. On May 18, 1989, Work Order No. 24902472 was issued to repair the valve. At the close of this inspection the licensee was investigating the root cause of the leakage. This item will remain open pending completion of the root cause evaluation and subsequent corrective action.
- j. (Closed) Open Item 255/86035-128(DRP): Evaluate turbine building sump pump design and recommend/implement modifications. Specification Change SC-87-318 was implemented replacing the pumps and redesigning the sump pump discharge piping for maintainability. The inspector reviewed sump performance with the system engineer and inspected the installation concluding the licensee's actions are acceptable.
- j. (Closed) Open Item 86035-147(DRP) and Open Item 86035-148(DRP): Periodic Activity Control (PPAC) Program Administrative Procedure 5.14 does not provide for identifying activities involving regulatory commitments (other than Technical Specifications) and does not specify who may cancel a PPAC activity or the criteria to be applied to cancellations.

Revision 5 to Administrative Procedure 5.14, "Periodic and Predetermined Activity Control," and Revision 9 to Procedure 5.01, "Processing Work Requests/Work Orders," and newly issued Procedure 9.27, "Augmented Testing Program Overview," provided for identification of regulatory commitments by use of a special PPAC priority category and to require that any cancellations be controlled by the cognizant planning and scheduling personnel who are aware the the source of PPAC requirements. The inspector reviewed a sample of PPAC forms confirming that the above appears to be implemented. A CPCo QA surveillance in progress during the inspection had identified a number of minor problems with implementation of the above with corrective action pending. The

licensee's actions, including the application of a QA surveillance, appeared effective.

- k. (Closed) Open Item 255/86035-151(DRP): Revise FSAR to accurately reflect Class 1E/Non-Class 1E design criteria for load shedding circuitry by the end of 1987. Action Item Record (AIR) No. AIR-87-25 was issued on March 5, 1987, assigning action. An initial FSAR change request was issued on June 29, 1988, and was rejected by CPCo nuclear licensing for lack of clarifying information. Upon revision, the FSAR change was approved and the AIR resolved.
- l. (Closed) Violation 255/86035-152(DRP): Inadequate procedure controls and implementation of 10 CFR 50.59 safety evaluations. The corrective and preventive actions taken by the licensee were reviewed with respect to the CPCo response letter of July 16, 1987, and a similar response to Violation 255/88001-01 discussed below. The licensee's actions included participation in industry working groups on this subject and major procedure revisions. Administrative Procedure 3.07, "Safety Evaluations," had been upgraded to current industry practice through revision 2 with further upgrades planned through revision 3. The inspector reviewed these changes and the station staff training program and records finding them acceptable. A sample of six recent safety evaluations reviewed by the inspector included several poor safety evaluation and analysis practices such as making conclusive statements without bases and using "relative risk" bases for conclusions without quantifiable data for risk comparisons. Plant management had previously identified similar, ongoing problems and had planned to establish a dedicated review group that would review safety evaluations (among other things) to ensure quality and consistency. Implementation is pending NRC approval of an already submitted Technical Specification Change Request. Also, a safety evaluation reviewer checklist is being incorporated into Administrative Procedure 3.07 and a continuing training course is being developed for administration to the plant staff. Based on the above, the licensee's actions were considered acceptable.
- m. (Closed) Open Item 255/87005-05(DRP): Issue report summarizing test results, findings, corrective actions, and surveillance program changes resulting from the System Functional Evaluation (SFE) program. The inspector reviewed the "System Functional Evaluation Program Summary Report," of September 30, 1988, finding that it included the characteristics above. The report also provided the background and disposition for each specific SFE item and its follow-up activities. The inspector noted that all SFE items were reported as complete (or transferred to the Augmented Test Program for long term performance).
- n. (Open) Open Item 255/87005-06(DRP): Issue report summarizing test results, corrective actions, and surveillance program changes resulting from the Augmented Test Program Efforts by June, 1987. At the time of this inspection, this report had not yet been prepared. While the licensee was maintaining a current status of

program activities, the program was not yet complete and had not been summarized in a report. Typical ongoing tasks involved the development of specific tests for some of the longer term tests such as verification of alarm circuits, various instrument calibrations, etc. At the close of this inspection the licensee was reviewing program status and stated that the resident inspectors would be advised when a summary report availability date was known.

- o. (Closed) Violation 255/88001-01(DRP): Safety evaluation failed to identify an unreviewed safety question involving operation of manual containment isolation valves for sampling safety injection tanks. The licensee's actions were reviewed in regard to NRC letters dated April 22, and July 29, 1988, and CCo responses to NRC dated April 23, and September 2, 1988. The inspector confirmed that revisions to the FSAR and to administrative and operating procedures has been made and implemented as stated in the licensee's response and that a Technical Specification Change Request responsive to the circumstances had been submitted as stipulated by the licensee. The aspects of the violation involving adequacy of safety evaluations pursuant to 10 CFR 50.59 were also reviewed and are reported in conjunction with Violation 255/86035-152 discussed above.

No violations, deviations, unresolved or open items were identified.

3. Operational Safety Verification (71707, 71710, 42700, 35502, 40500)

Routine facility operating activities were observed as conducted in the plant and from the main control rooms. Plant startup, steady power operation, plant shutdown, and system(s) lineup and operation were observed as applicable.

The performance of licensed Reactor Operators and Senior Reactor Operators, of Shift Technical Advisors, and of auxiliary equipment operators was observed and evaluated including procedure use and adherence, records and logs, communications, shift/duty turnover, and the degree of professionalism of control room activities.

Evaluation, corrective action, and response for off normal conditions or events, if any, were examined. This included compliance to any reporting requirements.

Observations of the control room monitors, indicators, and recorders were made to verify the operability of emergency systems, radiation monitoring systems and nuclear reactor protection systems, as applicable. Reviews of surveillance, equipment condition, and tagout logs were conducted. Proper return to service of selected components was verified.

a. General

The unit operated at approximately 80 percent power during this reporting period. The 80 percent power limit has been

administratively imposed by the licensee to resolve NRC questions pertaining to steam generator tube leakage. The licensee has agreed not to increase power without informing the NRC at least two weeks prior to the increase.

At the end of the report period the plant was on day 105 of their current production run.

The Palisades plant has completed one million man hours without a lost time accident.

b. Diesel Generator Fuel Oil Viscosity

During routine sampling of the Diesel Generator under ground fuel oil storage tank (T-10) the licensee determined that the fuel oil viscosity was too low. Later it was determined that T-10 had been mistakenly filled with grade #1 fuel oil instead of the desired grade #2. The individual day tanks (1 per diesel, 2 total) were sampled and determined to contain grade #2 fuel oil. The Diesel Generator vendor was contacted and stated that the diesels will operate on the existing fuel, therefore no operability concerns existed. However, the injector pump and injectors would wear more rapidly if the lower viscosity fuel was used for extended periods of time.

The licensee replaced the fuel oil in T-10 by transferring approximately 20,000 gallons during a feed and bleed operation to an alternate fuel oil storage tank. Prior to the addition, the makeup fuel oil was sampled to confirm that Grade #2 was added. After the replacement was completed, T-10 viscosity was tested with satisfactory results.

c. Bad Boron Standard Part 21

On May 2, 1988, Consumers Power submitted a 10 CFR Part 21 Report (Part 21 255/88010-09) to the NRC identifying a specific lot number of boron standard which had been found to be at 1064 ppm instead of the 1000 ppm procured. The licensee notified the vendor (Mallinckrodt) and quarantined or returned the remaining defective standard (lot #H507KCCC, expiration date of February 1990). During this inspection period the licensee has received another shipment of the defective standard from the vendor. It was identified by erroneous results received by performing primary coolant titrations and the resulting investigations.

The licensee submitted a similar 10 CFR Part 21 report in 1982 (reference inspection reports 255/83013, 255/83019 and 255/84002). That 10 CFR Part 21 report identified that 1000 ppm boron standards obtained from the J. T. Baker chemical company had been contaminated with Nitric Acid which lowered the PH to 2.0. This resulted in a boron detection error of approximately 10 percent. The inspector discussed this with the chemistry supervisor who assured the inspector that the current Part 21 report was not a repeat of the previous problem. The inspector plans to follow up

the results of independent verification of the standard concentration, reason for the poor followup after the previous event, and ascertain the acceptability of the licensee's dedication process.

d. Walkdowns

- (1) The inspector performed a walkdown of the visible portions of the service water system located in the screenhouse using licensee checklist 15.1 (CL 15.1), "Service Water System Checklist". The Inspector verified that each flow path valve was in its' correct position and no conditions existed that degraded the system. The inspector did find that the valves associated with the test line downstream of the last isolation valve were not identified on the checklist. In addition, the associated vent and vacant instrument tap had pipe caps installed but the isolation valves were open. This was discussed with operation personnel who stated that the valves were not included on CL 15.1 because they are controlled by the Service Water Pump surveillance test procedure. The inspector discussed the lineup with the system engineer who stated that the vent and instrument tap isolation valves are left open to prevent water entrapment and biologic growth since the test line is drained after the test.
- (2) The inspector performed a walkdown of the visible portions of the containment spray, low pressure safety injection and high pressure safety injection system located in the east and west safeguards rooms using licensee piping and instrument drawing M-204. The Inspector verified that each flow path valve was in its' correct position and no conditions existed that degraded the system.

- e. During valve restoration upon completion of the "A" safety injection tank sampling on July 8, the licensee found that one of two manual containment isolation valves in the sampling line failed to operate when closed. The second valve closed properly. The failure mechanism was attributed to a stripped bushing located near the hand wheel. The bushing did not effect the integrity of the valve.

Palisades Technical Specification are customized and vague pertaining to the actions required. The licensee submitted a "Letter of Interpretation" to NRR in 1982 which stated their intent to interpret their Technical Specification in accordance with the Standard Technical Specification, permitting one of two containment isolation valves to be inoperable provided the other valve is closed and deactivated. Recently the licensee was requested to revise their Technical Specification and eliminate the informal means previously employed to resolve Technical Specification problems. The licensee submitted a Technical Specification request in mid 1988. The change has received NRR reviews and is currently being posted in the Federal Register.

During a conference call between NRR and Region III on June 8, 1989, the licensee informed the NRC that they will implement the approved Technical Specification as clarified by the change request. This will allow continued plant operation as long as one manual containment isolation valve remains shut.

The licensee has closed the valve, fabricated and installed a clamp around the valve stem, and satisfactorily performed a local leakrate test on the penetration to confirm that containment integrity has not been compromised. In addition, the licensee has established an alternate sampling path for the safety injection tanks. The inspector has no additional question at this time but will visit this issue again when the Licensee Event report is issued.

- f. While sampling the Safety Injection Tanks (SIT) on June 2, one SIT was intentionally (by procedure) drained below the Technical Specification level. When High Pressure Safety Injection pump P-66A was started to refill the SIT, the breaker did not stay closed. The pump was declared inoperable at 6:45 p.m., placing the plant in a condition requiring plant shutdown under Technical Specification 3.0.3. (Palisades Technical Specification 3.3.2 only allows inoperability of one of the listed ECCS components.) P-66B was started and the SIT was refilled at 7:02 p.m. The plant was then in a 24 hour LCO governed by Technical Specification 3.3.2c and attention was directed toward repair of pump P-66A. The breaker was replaced, tested and the pump declared operable at 11:12 p.m. The inspector has no additional question at this time but will revisit this issue when the Licensee Event report is issued.
- g. During prior inspections the inspector had expressed concern for water dripping from the low points in the service air header in the auxiliary building. After humidity alarms on the air dryers would not clear, operators began investigating the cause and determined that the drain traps were inoperable. After completion of the work, the moisture problem has not recurred.

No violations, deviations, unresolved or open items were identified.

4. Maintenance (62703, 42700, 71500)

Maintenance activities in the plant were routinely inspected, including both corrective maintenance (repairs) and preventive maintenance. Mechanical, electrical, and instrument and control group maintenance activities were included as available.

The focus of the inspection was to assure the maintenance activities reviewed 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 post maintenance testing was performed as applicable.

The following activities were inspected:

- a. Replacement of flow tube on blowdown flow monitor FIS 2328 associated with RIA-0707 (W.O. 24902670)
- b. Replacement of air system check valves in air supply to CV-3212 (shutdown Heat Exchanger isolation valve) per SC-87-116. The valve was blocked open per TM-88-125. A limit switch was removed to facilitate the blocking device installation and was not replaced until the inspector identified its absence to the licensee. (W.O. 24802517 and W.O. 24802518). Work controls were adequate, but were apparently not properly implemented. The lack of this valve position indication would have no impact on plant operation except during valve stroke testing or infrequent maintenance on the heat exchanger.
- c. Replace limit switch on CV-3212 (W.O. 24902850)
- d. Relocate air dryer gauges per SC-87-108-2 on C-6A Safeguards Air Compressor (W.O. 24901442)
- e. Boric Acid Walkdown Team blanket work order. Inspector observed steam cleaning and packing adjustment on several manual CRW valves (W.O. 24900034 and W.O. 24900035). The inspector recommendation to adjust valve packing in steps was implemented.
- f. Preventive Maintenance on Diesel Generator (DG) 1-1 (W.O. 2490867)
- g. Repair of lube oil leaks on DG 1-1 (W.O. 24806486)
- h. Annual preventive maintenance on air compressor C-2A (W.O. 24902393)
- i. The inspector attended portions of an Engineering Design Seminar held on May 25 and 26, 1989 and found it to be an effective communication vehicle for review of corrective actions/improvements made in the design control area.

No violations, deviations, unresolved or open items were identified.

5. Surveillance (61726, 42700)

The inspector reviewed Technical Specifications required surveillance testing as described 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 properly 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 deficiencies identified

during the testing were properly reviewed and resolved by appropriate management personnel.

The following activities were inspected:

- a. QO-17 Quarterly Test of the "B" Charging Pump
- b. MI-5 Containment High-Pressure Initiation Circuits for RPS, SIS and CIS
- c. DWO-1 Daily Control Room Surveillance.
- d. SHO-1 Operators Shift Surveillance.
- e. DWO-13 LLRT - Local Leak Rate test for Inner and Outer Personnel Air Lock Door Seals
- f. QO-5 Check Valve Test Procedure
- g. Special Tests T-262, 263, 264 and 265. As a result of an event at another plant, followup of Emergency Diesel Generator (EDG) testing was conducted. The inspector determined that special tests T-262, 263, 264 and 265 had been developed under the System Functional Evaluation Program, to verify the trips which are not blocked during an Engineered Safeguards Feature start of the EDGs. Both generator differential and overspeed are among the trips which were checked and these tests are scheduled to be performed on a three year frequency. The licensee is also developing a generator reject test in accordance with Regulatory Guide 1.97 and IEE-387 of 1984.

No violations, deviations, unresolved or open items were identified.

6. Security (71707)

Routine facility security measures, including control of access for vehicles, packages and personnel, were observed. Performance of dedicated physical security equipment was verified during inspections in various plant areas including the central and secondary alarms stations. The activities of the professional security force in maintaining facility security protection were occasionally examined or reviewed, and interviews were occasionally conducted with security force members.

No violations, deviations, unresolved or open items were identified.

7. NRC Information Notices Followup (92701)

The inspector verified that the Information Notices listed below were reviewed for applicability by appropriated personnel and corrective actions (if any) were completed or appropriately scheduled.

- a. (Closed) IN 86-107: Entry into PWR Cavity with Retractable Incore Detector Thimbles Withdrawn.
- b. (Closed) IN 87-01: RHR Valve Misalignment Causes Degradation of ECCS In PWRs.
- c. (Closed) IN 87-04: Diesel Generator Fails Test Because Of Degraded Fuel Filter.
- d. (Closed) IN 87-05: Degraded Motor Leads In Limitorque DC Motor Operators.
- e. (Closed) IN 87-10: Potential For Water Hammer During Restart Of Residual Heat Removal Pumps.
- f. (Closed) IN 87-12: Potential Problems With Metal Clad Circuit Breakers, General Electric Type AKF-2-25.
- g. (Closed) IN 87-14: Actuation Of Fire Suppression System Causing Inoperability Of Safety-Related Ventilation Equipment.
- h. (Closed) IN 88-46 Supplement 1 & 2: Licensee Report Of Defective Refurbished Circuit Breakers.
- i. (Closed) IN 88-51: Failures Of Main Steam Isolation Valves.
- j. (Closed) IN 88-55: Potential Problems Caused By Single Failure Of An Engineered Safety Feature Swing Bus.
- k. (Closed) IN 88-59: Main Steam Isolation Valve Guide Rail Failure.
- l. (Closed) IN 88-67: PWR Auxiliary Feedwater Pump Turbine Overspeed Trip Failure.
- m. (Closed) IN 89-44: Hydrogen storage on the roof of the Control Room. The inspector reviewed the concerns identified in the Notice and concluded that the location of the hydrogen storage tanks (south of the turbine building) was not a similar concern. The hydrogen system is assigned to a System Engineer and is monitored and operated by the Operations Department. Documentation on the hydrogen tanks design was found in vendor file M-36, sheet 5. The six storage tanks have a combined volume of 442.3 cubic feet and working pressure of 1660 psi. A part of the vendor file contains a section on "Safety Rules for Hydrogen". Limitations and precautions for the hydrogen system do not appear to be emphasized in plant procedures, although the system operation is described in the operating procedures. This issue was discussed at the management exit meeting.

No violations, deviations, unresolved or open items were identified.

8. Quarterly Management Meeting (30703)

On May 16, a quarterly management meeting was held at the Palisades

site with the personnel indicated in Paragraph 1 in attendance. Topics of discussion included: contamination control; configuration control project; licensee actions as result of the recently completed NRC maintenance and engineering team inspections; steam generator replacement project; performance trends; results of the recently completed INPO inspection; and, concluded with an NRC viewpoint on Palisades performance.

9. Management Interview (30703)

The inspectors met with licensee representatives (denoted in Paragraph 1) on June 13, to discuss the scope and findings of the inspection. In addition, the inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.