

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 50-255
License No.: DPR-20

Report No.: 50-255/97006(DRP)

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

Facility: Palisades Nuclear Generating Plant

Location: 27780 Blue Star Memorial Highway
Covert, MI 49043-9530

Dates: April 12 through May 23, 1997

Inspector: P. Prescott, Resident Inspector

Approved by: Bruce L. Burgess, Chief
Reactor Projects Branch 6

EXECUTIVE SUMMARY

Palisades Nuclear Generating Plant NRC Inspection Report 50-255/97006

This inspection reviewed aspects of licensee operations, maintenance, engineering and plant support. The report covers a 6-week period of resident inspection.

Operations

- The inspectors determined that communications between operations and the work groups to be good. An area for improvement noted was communications between operations and system engineering. (Section O1.2).
- During closeout of a licensee event report (LER), the inspectors identified two non-cited violations (NCVs) for procedure inadequacies. One NCV involved inadequate procedural detail for proper operation of the containment spray pumps' light/pushbutton. The other NCV was for lack of procedural guidance for determining reportability of a single component actuation (Section O8.1).

Maintenance

- The inspectors identified operations/engineering interdepartment communication and post maintenance testing problems during the P-55A charging pump maintenance outage (Section M1.2).

Engineering

- The inspectors identified possible generic implications to fluid hoses in other systems important to safety after the failure of the P-2A condensate pump discharge vent line hose (Section E1.1).
- The inspectors found the 125 VDC vital power system engineer was proactive in encouraging the licensee to test and obtain a new nonintrusive ground detection system, which should improve safe operation of the plant (Section E1.2).
- The inspectors identified a lack of thorough understanding of system design by system engineering during review of the turbine driven auxiliary feedwater system surveillance data. The inspectors noted that this problem appeared to be a trend (Section E1.3).

Plant Support

- The inspectors noted during daily plant walkdowns and observations of maintenance activities that radiological worker practices were adequate. However, the inspectors identified that catch basins, which have become more prevalent in the plant, were not being controlled by the licensee. This was indicative of degrading plant material condition (Section R1.1).

REPORT DETAILS

Summary of Plant Status

The unit operated at essentially 99.6 percent power for the entire inspection report period. May 23, 1997, marked the 93rd day of the current power production run.

I. Operations

01 Conduct of Operations

01.1 General Comments (71707)

Using Inspection Procedure 71707, the inspectors conducted frequent reviews of ongoing plant operations. The conduct of operations was considered by the inspectors to be good; specific events and noteworthy observations are detailed below.

01.2 Observations of Interdepartment Communications

a. Inspection Scope (71707, 61726, 62707 and 37551)

The inspectors observed operations in daily interactions with other departments. The focus was on communications during maintenance and surveillance activities.

b. Observations and Findings

The inspectors concentrated on interdepartment communication during observance of maintenance and surveillance activities. No significant issues between the maintenance work groups and operations were identified. The inspectors noted that during performance of surveillances, instrumentation and control technicians communicated to operations the potential alarms that may come in prior to actuation of the alarms. Following maintenance on the emergency diesel generator 1-2, operations responded promptly to return diesel fluid levels to normal and remove the diesel fluid barrels when finished. This had been a concern identified in a previous inspection report. The inspectors noted that operations was safety conscious when supporting testing after maintenance and promptly returned equipment back to service.

The inspectors found communications between engineering and operations was sometimes deficient. This was particularly evident during the P-55A charging pump work. When the work scope changed, system engineering did not inform operations in a timely fashion. Details of this can be found in Section M1.2 of this inspection report.

During performance of turbine auxiliary feedwater pump testing, engineering did not promptly communicate to operations personnel performing governor speed adjustments, thus resulting in poor control over monitoring governor speed adjustments.

However, good communication of testing expectations was noted during performance of special generator volt-amperage reactive (VAR) test T-357.

c. Conclusions

The inspectors found communication between operations and the appropriate groups to be good. An area that required improvement was communications between operations and system engineering. Operations did not stress to various departments the expectation that information concerning plant systems status is expected to be conveyed in a timely manner.

08 Miscellaneous Operations Issues (92700)

08.1 (Closed) LER 50-255/94-002: Inadvertent containment spray (CS) pump actuation during performance of Technical Specification (TS) surveillance Q0-1, "Safety Injection System." During step 5.2.9, the control room operator verifies that the white standby lights were illuminated for CS pumps P-54B and P-54C, indicating that the safety injection actuation system signal is initiated for the CS pumps to start. While performing self-checking to verify that the white standby light had illuminated, the operator placed his finger on the white light. The operator inadvertently depressed the white light/pushbutton, which resulted in P-54B starting. The operator observed the red (running) light for a P-54B start and immediately stopped the pump. Problems that were identified and the corrective actions taken were:

- There was no precaution in procedure Q0-1 notifying the operators that the CS pumps will start if the white light/push-button is depressed when the light is illuminated.

The following step was added to Q0-1 Section 4.3, Equipment/Plant Safety Limit, "Upon initiation of Safety Injection Signal (SIS), the white standby light/push-button(s) for the CS pump(s) will illuminate. Depressing the white standby light/push-button when illuminated will result in a pump start." The inspectors considered the licensee identified and corrected violation for an inadequate surveillance procedure a Non-Cited Violation (50-255/97006-01), consistent with Section VII.B.1 of the NRC Enforcement Policy. The inspectors found that operators were aware of the white light/push-button dual functions. Additionally, the inspectors found that operators were given training on the function of the white light/push-button.

- The inadvertent pump start was not reported as a four hour reportable engineered safety feature (ESF) actuation.

Administrative procedure 4.0, "Operations Organization, Responsibilities, and Conduct," step 5.5.2c.2, was revised to include reporting single component actuations, such as the CS pump start. The inspectors considered this licensee identified and corrected violation a Non-Cited Violation 50-255/97006-02, consistent with Section VII.B.1 of the NRC Enforcement Policy. The licensee reported the event within 24 hours.

This item is closed.

- 08.2 (Closed) LER 50-255/94-014: Potential sump blockage from signs, adhesive labels and tape. On April 28, 1994, with the plant in cold shutdown, signs, adhesive labels and tape, which have the potential to block the containment sump were identified to be throughout containment. The initial operability evaluation assumed, in a worse case scenario, that if these items became loose, then an unacceptable flow blockage for recirculation of the containment sump water could occur. Root causes for this issue included a lack of controls of material used to attach signs, labels or other material that could have an impact on post accident containment sump water recirculation flow and a less than adequate containment cleanliness verification process.

The licensee performed an immediate extensive cleanup and re-labeling effort. In parallel with the cleanup and relabeling effort, an engineering analysis was performed. Identified recirculation water flow paths were cleared of potential debris. The cleaning and re-labeling effort encompassed the entire containment building. The inspectors reviewed the current checklist, CL 1.4, "Containment Closeout Walk-Through," for adequacy in addressing this issue and found the procedure to be thorough. The inspectors also performed an independent walkdown of containment subsequent to the 1996 refueling outage. Cleanliness of the containment was found to be good. The inspectors also observed that operators performed an independent containment closeout walkdown using CL 1.4. No deficiencies were noted. Administrative procedure 1.01, "Material Condition Standards And Housekeeping Responsibilities," was revised designating operations as the lead department responsible for containment cleanliness and giving guidelines for controlling signs, tags and labels. Additionally, administrative procedure 9.03, "Facility Change," design input checklist was revised to apprise the responsible engineer of the considerations when installing anything in containment. This item is closed.

- 08.3 (Closed) LER 50-255/95-010: Engineered safety feature (ESF) actuation - manual reactor trip following isolation of a primary coolant system (PCS) leak. On August 15, 1995, the plant was in hot standby when the control room received a containment interior instrument smoke alarm. Simultaneously, a 'B' channel reactor protection system (RPS) trip was received and differential pressure (DP) indicators DPI-0112BB and DPI-112AB indicated low PCS flow. Subsequently, a report was received from instrumentation and control technicians informing the control room of

a steam leak in the containment air room. Auxiliary operators were dispatched to containment to identify and isolate the steam leaks. In the process of isolating the leaks, low flow pretrip alarms were received on RPS channels 'A' and 'C' and the shift supervisor ordered a manual reactor trip.

Subsequent to the manual reactor trip, it was determined that the PCS root valves supplying DP transmitters DPT-0112AB and DPT-0112BB, were incorrectly labeled. As a result, additional root valves were closed. Initial closure of the incorrect root valves isolated DP transmitters associated with the 'A' and 'C' RPS channels, which resulted in the low flow pretrips received on these channels.

The leak was subsequently determined to be caused by a sensing line separating from a swagelock fitting at the high pressure inlet side of DPT-0112BB. The leak rate was estimated at 11-14 gpm which was within the capacity of the charging pumps and thus was not considered to be a small break loss of coolant accident.

The licensee took the following corrective actions:

- The failed swagelock fitting and associated tubing was replaced using plant guidelines for installation of compression fittings. Components located in the general area of the leak were inspected for damage and were wiped down to remove boric acid residue.
- The DP transmitters were restored to service by opening the affected PCS root valves. Checks of the readings of the DP indicators and at the RPS input were taken to confirm that the transmitter output indicated to expected values.
- Approximately 100 swagelock connections inside containment were inspected. No deficiencies were identified.
- In the 1996 refueling outage, all DP transmitter root valves were verified as appropriately labeled.

This item is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments

a. Inspection Scope (62707 and 61726)

The inspectors observed all or portions of the following work activities:

Work Order No:

- 24710551: Perform fuel bundle inspections using eddy current testing with Siemens on bundle N-53 and M-18
- 042297DK01: Open/Inspect condensate tank and demister on radwaste volume reduction system
- 24612503J: P-55A charging pump couple and align
- 24711503: Primary Coolant Pump P-50C breaker 252-104 replace 251X relay due to intermittent ground
- 24711598: Temporary leak repair for P-2A condensate pump discharge vent line flexible hose
- 24711052: Remove and replace breaker 72-226 annunciators to panel C-11
- 24712096: VC-11 CRHVAC-high suction pressure open and inspect
- 24710551: Inspect fretting on fuel bundles L-59 and M-25 from fuel cycle 9
- 24712088: Clean and adjust automatic voltage regulator on EDG 1-1

Surveillance Activities

- Q0-21: Auxiliary Feedwater System Valves Inservice Test
- RI-99: Left Channel Nuclear Instrumentation Calibrations
- T-357: Generator Reactive Test
- M0-33: Control Room Ventilation Emergency Operation

b. Observations and Findings

The inspectors found the work performed under these activities to be professional and thorough. All work observed was performed with the work package present and in active use. Work packages were comprehensive for the task and post maintenance testing requirements were adequate. The inspectors frequently observed supervisors and system engineers monitoring work practices. When applicable, appropriate radiation control measures were in place.

c. Conclusions

In general, the inspectors observed good procedure adherence and maintenance practices. However, the inspectors noted several problems during performance of the P-55A charging pump maintenance outage. See the specific observations detailed below.

M1.2 P-55A Charging Pump Maintenance Outage

a. Inspection Scope (62707 and 37551)

The inspectors observed portions of the maintenance for the P-55A charging pump including post maintenance testing and the licensee's actions to determine pump operability.

b. Observations and Findings

The inspectors identified operations/engineering interdepartment communication and post maintenance testing (PMT) problems during the replacement of the M-55A fluid drive for the P-55A charging pump. Operations was under the impression that the out of service time for P-55A pump would be approximately 64 hours. Actual time expended was 5 days and 11 hours. One of the emergent issues was the bolting for the enlarged P-55A pump motor base. Engineering increased the motor hold down bolts from 5/8 inch to 3/4 inch. Unlike the P-56A boric acid transfer pump, which had the same modification, engineering planned ahead and had the engineering analysis prepared in case the motor base bolt holes had to be increased in size to accommodate alignment. However, operations was unaware that this might mean an additional delay in return to service of the charging pump.

Additionally, during the post maintenance testing, flow indication gauge FI-0212A delayed the return to service of P-55A because of an outstanding work request to evaluate indication oscillations of the gauge. The work request tag stated that these oscillations were due to the gauge operating in the 95 percent upper limit gauge range, rather than the normal 75 percent range of the gauge. The inspectors noted that a condition report (CR) was written on problems associated with overall difficulty in adjusting the gauge within tolerance on both the high and low end of the gauge. Calibration problems with FI-0212A had been noted since the gauge was originally installed.

The inspectors inquired why gauge FI-0212A was not included in the P-55A maintenance outage, especially since the gauge was to be used in determining operability of the charging pump. The system engineer stated that at the time, the repair of the gauge was not considered to be a priority. During vibration testing it was identified that vibrations on the gear box had taken a significant step increase; however, no condition report was written and operations was not notified. This further impacted the return to service of the charging pump.

c. Conclusions

The inspectors noted that, compared to previous pump outages, the licensee conducted a better pre-job planning for this charging pump maintenance outage. However, the inspectors identified that there was a lack of communications between engineering and operations regarding the impact of emergent work and a lack of sensitivity for the importance of instrumentation vital to equipment important to safety.

M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) IFI 50-255/94014-036: Numerous fundamental weaknesses regarding material control and supply of parts from the warehouse. The inspectors performed a walkdown of the warehouse, reviewed applicable procedures and held discussions with the warehouse and procurement supervisors.

Problems identified during the DET in the warehouse were; failure to cover exposed electronic parts, not segregating safety related from non-safety related parts, not removing from stock parts that had exceeded their shelf-life, cleanliness of the warehouse, and failure to properly tag salvage material. The inspectors found a few minor tagging issues, but the overall material condition of the warehouse was adequate. Items were properly segregated, tagged and stored.

Another concern identified during the DET was the difficulty of using the licensee's databases for accurately tracking spare parts. This same databases was still in use. However, one of the licensee's actions to improve tracking of parts was the institution of barcoding. The inspectors noted an improved ability to trend parts. Previously, much of this was accomplished by personnel maintaining handwritten documentation of where parts were in the system. Personnel received training to more efficiently utilize the databases for tracking spare parts.

The DET identified a lack of good procedural guidance for material storage and control. The inspectors reviewed the revised procedures and found that they adequately addressed the DET's concerns. This item is closed.

M8.2 (Closed) Licensee Event Report 50-255/96-003: Auxiliary shutdown panel inverter low voltage cut-off setting resulted in unavailability of panel. On January 15, 1996, it was discovered that during the performance of work on September 27, 1995, technicians found the low voltage cutoff for the alternate shutdown panel inverter set at 120 VDC input. The Appendix R calculation for battery capacity showed that the initial battery terminal voltage would be less than 120 VDC at the onset of a fire requiring use of the alternate shutdown panel, coincident with a loss of offsite power and battery chargers. Based on this calculation, the alternate shutdown panel would not have operated, as the battery voltage would not have been high enough to overcome the low voltage setpoint. Fires in the electrical equipment room, 1D switch gear room, cable spreading room, and auxiliary building 590' corridor which require use of the alternate shutdown panel, also have the potential to cause a loss of the station battery charger. This would result in the

alternate shutdown panel being powered directly from the station batteries to effect safe shutdown outside the control room. During the September 1995 work, the low voltage cutoff was reset to resolve the issue. The setpoint issue was not identified as putting the plant outside its design basis until the work order was reviewed.

One of the issues the inspectors identified was that the licensee simply made the new low voltage setpoint the minimum possible setting of 100.3 VDC. The licensee has since supplied calculations for the proper settings, taking into account capacity over a 72 hour Appendix R scenario and other variables. The new setpoint is 105 (+0,-1) volts. A periodic and predetermined activity control (PPAC) was written to periodically check and adjust the voltage setpoint of the inverter power source to the shutdown panel. Also, other similar equipment had the setpoints verified. Lastly, a lessons learned presentation was given to engineering on this event. This problem was detailed in a NRC Appendix R inspection report. Potential violation issues were addressed in that report. This item is closed.

III. Engineering

E1 Conduct of Engineering

E1.1 Preventive Maintenance Deficiency For System Hoses

a. Inspection Scope (37551)

After leaking was identified on the condensate pump P-2A discharge vent line flexible hose, the inspectors followed licensee actions to repair the hose and review the corrective actions taken. The inspectors were concerned with the generic implications of the hose failure.

b. Observations and Findings

On April 16, 1997, a pinhole leak was discovered on the P-2A condensate pump discharge vent line flexible hose. The vent line is used to remove air during initial startup of the condensate pump and the flexible hose portion of the line is unisolable. The hose is a stainless steel bellows design within a steel braided jacket. Because the hose was unisolable, the licensee had the hose evaluated by a temporary leak repair vendor. The vendor was able to design an enclosure around the hose and fill it with a leak sealant.

In discussions with the system engineer, the inspectors learned that the hose was last replaced in 1989. A review of work order history showed several failures of hoses on both condensate pumps. The system engineer reviewed vendor information and found that the hose had a service life of approximately five years. The licensee had no licensee preventive maintenance program, known as periodic and predetermined activity control (PPAC) or procedure for periodic changeout of the flexible hose. The inspectors reviewed the licensee's stock list of hoses to see if any safety equipment or equipment important to safety may also have similar

hoses. The emergency diesel generator (EDG) was identified as having several hoses. The system engineer was aware of a service life (five years) for the hoses on the EDGs. Procedures RM-63-1 and RM-63-2, "Diesel Generator Inspection," for the EDGs covered inspecting the hoses on a refueling periodicity. After reviewing the procedure, the system engineer concluded it would be prudent to revise the procedures to replace the flexible hoses every fourth refueling outage. Also, the hose inspections would continue. The system engineer has submitted procedure changes to replace the hoses. The inspectors provided the licensee information on other hoses found during a work order history review that had failed repeatedly in safety systems. The licensee was in the process of reviewing these hoses as potentially requiring PPACs to ensure better reliability.

c. Conclusions

The licensee adequately addressed the inspectors' concerns on instituting PPACs for hoses in systems important to safety. The inspectors discussed with the licensee the concern that the system engineers had not picked up on the potential generic implications that this might have to other systems. This was similar to the inspectors' concerns regarding rubber expansion joints and the generic implications of not having PPACs to address them. This was detailed in inspection report 50-225/95013.

E1.2 Direct Current (DC) Ground Detection System

a. Inspection Scope (37551)

The inspectors reviewed the licensee's implementation of a new nonintrusive DC ground detection system.

b. Observations and Findings

Due to encouragement from the system engineer for the 125 VDC vital DC power system, the licensee was working with a relatively new technology which detects DC grounds. The ground detection equipment allows, from a plant safety aspect, nonintrusive testing of DC circuitry. Palisades has a permanently installed ground detection system, which detects a ground and displays its severity in the positive or negative circuits. However, in order to pinpoint the ground, circuit breakers must then be opened until the ground detection system shows a zero milliamp differential signal between the positive and negative circuits. What the new ground detection equipment technology allows is testing of circuits without opening breakers. The obvious advantage being the elimination of tripping or actuating plant equipment unnecessarily.

Briefly, there are two significant pieces of equipment to this new ground detection equipment system. One unit replaces the original ground detection system. The unit, called an interrupter, is placed across the positive and negative leads and is adjusted to identify the milliamp difference between the positive and negative leads. This unit then allows a ground fault to flow at six second intervals. The other unit,

which is portable, uses a magnetic sensor assembly (MSA), which is used to encircle a cable or group of cables. The MSA unit is then synchronized to the interrupter and its signal output. It has a display reading that will indicate changes of the load current added to the fault current through the MSA over one complete interrupter cycle. One interrupter cycle has a duration of 12 seconds.

The vendor provided onsite training to the system engineers that would have involvement in detecting grounds and to electrical maintenance personnel that would assist in the process. The inspectors observed portions of the training and found it to be thorough. The inspectors found that personnel were knowledgeable in the use of the ground detection equipment. The licensee, prior to actually applying the system in the plant, developed and issued procedure EPS-E-9, "Use Of Portable DC Ground Fault Detection System." The inspectors reviewed the procedure and found it adequate. Finally, the licensee successfully detected a ground that was pinpointed to the primary coolant pump P-50C. The ground was traced to an annunciator relay for electrical problems in the P-50C breaker. The inspectors followed the replacement of this relay. The inspectors identified a loose nut that was between a bracket and terminal connection, which was most likely the source of the ground.

c. Conclusions

The inspectors found the system engineer proactive in finding and encouraging the licensee to test and obtain a new ground detection system, which should improve safe operation of the plant. The licensee provided adequate training and was fully prepared prior to using the equipment in the plant.

E1.3 Trend In Testing Deficiencies

a. Inspection Scope (37551)

The inspectors reviewed test data from surveillance QO-21, "Inservice Test Procedure - Auxiliary Feedwater Pumps," due to a repeatability concern with governor speed. The system engineer had documented this concern in condition report C-PAL-97-0762. The inspectors discussed the potential question of auxiliary feedwater (AFW) system operability. The inspectors also reviewed the recent overall trend in testing performance by system engineering.

b. Observations and Findings

Procedure QO-21 was performed on May 14, 1997 and the initial P-8B AFW pump speed was 3600 rpm. During the previous surveillance, conducted on February 13, 1997, P-8B AFW pump speed was left at 3560 rpm but drifted to 3515 rpm following surveillance testing. The governor was adjusted to return pump speed to 3560 rpm.

The inspectors were concerned with this degraded condition and requested a review of this matter to determine if this band of repeatability was within the design of the governor. The component vendor was contacted and informed the licensee that the governor should have a high degree of repeatability and should be able to stay within a ½ percent of full range and that the a 20 rpm band would be a good acceptance criteria. The P-8B governor has been in service for approximately five years and the licensee has ordered two governors and intends to replace this governor at the earliest opportunity. The inspectors determined through review of previous surveillance data and performance specifications for governor speed and pump flow, that the governor would be able to perform its intended function.

However, the inspectors were concerned with the lack of prior design capability taken into consideration when outlining acceptability of pump performance characteristics and prerequisites required for achieving optimum test standards. One of the additional items learned through discussions with the vendor was that the pump should be allowed to operate for five minutes prior to governor adjustments and data gathering, to allow the governor oil sufficient time to warm up to normal operating conditions. Governor adjustments were made soon after the pump was started and the procedure only waits two minutes prior to taking data.

On a broader scope, in several recent inspection reports, the inspectors noted problems during testing of various systems. This was evident with the P-55A charging pump, which is detailed in section M1.2 of this report. Previous examples included:

- 50-255/97005: The inspectors found several discrepancies in test data in the 1995 refueling outage testing of the safeguards high pressure air system.
- 50-255/96018: The licensee identified inadequate testing for DC circuit breakers.
- 50-255/96008: The inspectors identified a lack of initial baseline testing for the containment air coolers installed in 1995. The safeguards room coolers were also identified as having poor initial test conditions, which meant the data taken was too poor to adequately trend with.

On a positive note, the inspectors observed main generator volt-ampere reactive (VAR) test T-357, which was well planned and executed. The VAR testing was performed to determine the amount of VARs in, that the main generator could safely handle. This will be important especially during the upcoming summer, when grid stability could be of concern. The procedure was thorough and operations personnel were well briefed.

c. Conclusions

The inspectors were concerned with system engineering's understanding of system design and application of this to surveillance acceptance criteria. Several recent

related examples indicated that this area requires improvement. However, the inspectors observed good testing practices during performance of the special test for main generator VAR testing.

IV. Plant Support

R1 Radiological Protection

R1.1 Maintenance Outages and Daily Radiological Work Practices

a. Inspection Scope (71750 and 83750)

The inspectors observed radiological worker practices during various maintenance activities detailed in this inspection report and also monitored radiological practices during daily plant tours.

b. Observations and Findings

The inspectors' observations of jobs in progress during the maintenance activities detailed above revealed that radiation technicians were visible at the job sites taking appropriate actions and surveys in accordance with good ALARA practices. However, the inspectors did express concern with the number of catch basins and hot spots throughout the plant. The inspectors identified that the licensee was not trending the number of catch basins in the plant and did not have a mechanism in place to remove them once they were not needed. The licensee generated a list to trend catch basins and was also developing a method to remove catch basins no longer required.

c. Conclusions

The inspectors concluded that radiological practices observed during the maintenance activities and daily walkdowns were adequate. The inspectors did identify a weakness in the control of catch basins in the plant. Additionally, little progress was made in the reduction of hot spots, which impacted on achieving good ALARA standards in the plant.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on May 23, 1997. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. J. Palmisano, Site Vice President
J. L. Hanson, Strategic Business Issues Director
G. B. Szczotka, Nuclear Performance Assessment Manager
R. J. Gerling, Design Engineering Manager
T. C. Bordine, Licensing Manager
D. W. Rogers, Plant Operations General Manager
J. P. Pomeranski, Maintenance Manager
D. P. Fadel, Engineering Director
D. G. Malone, Shift Operations Supervisor
M. P. Banks, Chemical & Radiological Services Manager
K. M. Haas, Training Manager
S. Y. Wawro, Maintenance & Planning Director

NRC

B. L. Burgess, Chief Reactor Projects Branch 6
P. F. Prescott, Resident Inspector, Palisades

INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
IP 61726: Surveillance Observations
IP 62707: Maintenance Observation
IP 71707: Plant Operations
IP 71750: Plant Support Activities
IP 83750: Occupational Radiation Exposure
IP 92700: Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92902: Followup - Maintenance
IP 92903: Followup - Engineering

ITEMS OPENED

50/255/97006-01 NCV Lack of procedural guidance in QO-1, "Safety Injection System," notifying operators that CS pumps start if white light/push-button is depressed when lit
50-255/97006-02 NCV Lack of procedural guidance: CS pump start not reported as a four hour reportable ESF actuation

ITEMS CLOSED

50-255/94-002 LER Inadvertent CS pump actuation during performance of TS surveillance
50-255/94-014 LER Potential sump blockage from signs, adhesive labels and tape
50-255/94014-36 IFI Numerous fundamental weaknesses regarding material control and supply of parts from the warehouse
50-255/95-010 LER ESF actuation - manual reactor trip following isolation of a primary coolant system (PCS) leak
50-255/96-003 LER Auxiliary shutdown panel inverter low voltage cut-off setting results in unavailability of panel
50/255/97006-01 NCV Lack of procedural guidance in QO-1, "Safety Injection System," notifying operators that CS pumps start if white light/push-button is depressed when lit
50-255/97006-02 NCV Lack of procedural guidance: CS pump start not reported as a four hour reportable ESF actuation

LIST OF ACRONYMS USED

AFW	Auxiliary Feed Water
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
CL	Check List
CR	Condition Report
CRHVAC	Control Room Heating Ventilation & Air Conditioning
CS	Containment Spray
DET	Diagnostic Evaluation Team
DP	Differential Pressure
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
ESF	Engineered Safety Feature
GPM	Gallons Per Minute
IFI	Inspection Followup Item
IP	Inspection Procedure
LER	Licensee Event Report
MSA	Magnetic Sensor Assembly
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PCP	Primary Coolant Pump
PCS	Primary Coolant System
PDR	Public Document Room
PMT	Post Maintenance Test
PPAC	Periodic & Predetermined Activity Control
RPS	Reactor Protection System
TS	Technical Specification
VAR	Volt-Ampere Reactive
VDC	Volts-Direct Current