Mr. Daniel J. Malone Site Vice President Palisades Nuclear Plant Nuclear Management Company, LLC 27780 Blue Star Memorial Highway Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT

NRC INSPECTION REPORT 05000255/2005004

Dear Mr. Malone:

On March 31, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Palisades Nuclear Plant. The enclosed report documents the inspection findings which were discussed on March 31, 2005, with Mr. G. Hettel and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results from this inspection period, one finding of very low safety significance (Green) was identified which involved a violation of NRC requirements. However, because the finding was of very low safety significance and because the issue has been entered into your corrective action program, the NRC is treating the violation as a Non-Cited Violation in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

If you contest the subject or severity of a Non-Cited Violation, you should provide a response with a basis for your denial, within 30 days of the date of this inspection report, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Palisades facility.

D. Malone -2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert M. Lerch, Acting Chief Branch 6 Division of Reactor Projects

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

Enclosure: Inspection Report 05000255/2005004

w/Attachment: Supplemental Information

cc w/encl: J. Cowan, Executive Vice President

and Chief Nuclear Officer

R. Fenech, Senior Vice President, Nuclear

Fossil and Hydro Operations

D. Cooper, Senior Vice President - Group Operations

Manager, Regulatory Affairs

J. Rogoff, Vice President, Counsel and Secretary A. Udrys, Esquire, Consumers Energy Company

Director of Nuclear Assets, Consumers Energy Company

Supervisor, Covert Township

Office of the Governor

Michigan Department of Environmental Quality -Waste and Hazardous Materials Division Michigan Department of Attorney General

DOCUMENT NAME: E:\Filenet\ML051240380.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII	RIII		
NAME	R.Ruiz:co	R.Lerch		
DATE	04/29/05	04/29/05		

D. Malone -2-

# ADAMS Distribution: WDR

JFS2

RidsNrrDipmlipb

GEG

KGO

JAL3

CAA1

C. Pederson, DRS (hard copy - IR's only)

DRPIII

DRSIII

PLB1

JRK1

ROPreports@nrc.gov

# U.S. NUCLEAR REGULATORY COMMISSION REGION III

Docket No: 50-255

License No: DPR-20

Report No: 050000255/2005004

Licensee: Nuclear Management Company, LLC

Facility: Palisades Nuclear Generating Plant

Location: 27780 Blue Star Memorial Highway

Covert, MI 49043-9530

Dates: January 1 through March 31, 2005

Inspectors: J. Lennartz, Senior Resident Inspector

M. Garza, Resident Inspector

C. Phillips, Senior Operations Engineer

Approved by: Robert Lerch, Acting Chief

Branch 6

Division of Reactor Projects

#### **SUMMARY OF FINDINGS**

IR 05000255/2005004; 01/01/2005 - 03/31/2005; Palisades Nuclear Plant; Maintenance Effectiveness.

This report covers a 3-month period of baseline resident inspections and announced inspections of licensed operator requalification training. The inspections were conducted by the resident inspectors and Region III inspectors. One Green finding with an associated Non-Cited Violation (NCV), was identified during this inspection period. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

# A. Inspector-Identified and Self-Revealed Findings

**Cornerstone: Mitigating Systems** 

• Green. The inspectors identified a finding of very low safety significance (Green) regarding the failure to implement corrective actions in a timely manner to identify why the component cooling water heat exchanger service water outlet valves failed to open in February 2003 and March 2003. Consequently, the cause was not identified and on January 16, 2005, CV-0826, "Component Cooling Water Heat Exchanger E-54B Service Water Outlet Valve," again failed to open when control room operators initially attempted to open the valve. The primary cause of this finding was related to the cross-cutting area of problem identification and resolution for failing to implement corrective actions.

This finding was more than minor because it was related to the equipment performance attribute of the mitigating systems cornerstone and the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences was adversely impacted. Specifically, the reliability and capability of CV-0826 to automatically open on a recirculation actuation signal and provide the required flow to the component cooling water heat exchangers was not ensured when CV-0826 failed to open on January 16, 2005.

The finding was of very low safety significance because the safety function was not lost. A non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," was identified. As an interim corrective action, both CV-0823 and CV-0826 are being cycled on an increased frequency to verify the valves will stroke open. Other planned corrective actions included installing a larger spring in the valve actuators to increase the opening force to overcome high frictional forces and to evaluate and implement appropriate modifications for the valves. (Section 1R12)

# B. Licensee-Identified Violations

None.

#### **REPORT DETAILS**

A list of documents reviewed within each inspection area is included at the end of the report.

# **Summary of Plant Status**

The plant operated at or near full power during the inspection period with the following two exceptions:

On January 9, 2005, control room operators manually tripped the reactor because of a loss of condenser vacuum. After the cause for the loss of condenser vacuum was repaired, the reactor was taken critical on January 14, 2005. However, during startup activities for the main turbine, nonsafety-related turbine monitoring instrumentation indicated that a differential expansion existed between the turbine rotor and the turbine casing. Consequently, the main generator could not be synchronized to the electrical grid.

The reactor was maintained at approximately 1 percent power while licensee personnel investigated the cause for the differential expansion. The indications were subsequently determined to be erroneous because of degraded cables on the instrument probes that provided the signal for differential expansion. Following repairs to the turbine monitoring instrumentation, the main generator was synchronized to the electrical grid on January 19<sup>th</sup>. The plant was returned to full power on January 21<sup>st</sup>.

On January 23, 2005, all four nonsafety-related moisture separator reheater steam supply valves unexpectedly closed. As a result, plant power was reduced to approximately 96 percent. A failed relay in the control circuitry for the valves was replaced and the plant was returned to full power on January 24<sup>th</sup> where it was maintained for the remainder of the inspection period.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

# 1R04 Equipment Alignment

.1 Partial Walkdowns (71111.04Q)

# a. <u>Inspection Scope</u>

The inspectors completed four equipment alignment inspection samples by performing partial walkdowns on the following risk-significant plant equipment:

 containment spray pumps P-54B and P-54C on January 25, 2005 while containment spray pump P-54A was out of service for planned maintenance;

- motor driven fire water pump P-9A and diesel driven fire pump P-9B on February 11, 2005, while diesel driven fire pump P-41 was out of service for emergent maintenance;
- component cooling water pump P-52A on February 23, 2005, while component cooling water pump P-52B was out of service for scheduled maintenance; and
- auxiliary feedwater pump P-8C on March 8, 2005, while auxiliary feedwater pump P-8B was out of service for scheduled maintenance.

During the walkdowns, the inspectors verified that power was available, that accessible equipment and components were appropriately aligned, and that no open work orders for known equipment deficiencies existed which would impact system availability.

The inspectors also reviewed selected condition reports related to equipment alignment problems and verified that identified problems were entered into the corrective action program with the appropriate significance characterization and that planned and completed corrective actions were appropriate and implemented as scheduled.

# b. <u>Findings</u>

No findings of significance were identified.

# .2 Complete Walkdown (71111.04S)

#### a. Inspection Scope

The inspectors completed one semi-annual equipment alignment inspection sample by performing a complete walkdown of the emergency diesel generators. Utilizing piping and instrumentation diagrams and system checklists, the inspectors verified that accessible system components were correctly aligned. The inspectors also reviewed open maintenance work orders to verify that the equipment's safety function was not adversely impacted by pending work.

The inspectors reviewed select condition reports associated with the emergency diesel generators to verify that identified problems were entered into the corrective action program with the appropriate significance characterization. The inspectors also verified that planned and completed corrective actions were appropriate.

# b. Findings

No findings of significance were identified.

# 1R05 Fire Protection

# .1 Fire Area Walkdowns (71111.05Q)

#### a. Inspection Scope

The inspectors completed eight fire protection inspection samples by touring the following areas in which a fire could affect safety-related equipment:

- C fire area 1, control room complex
- C fire area 23D, critical function monitor computer trailer
- C fire area 8, emergency diesel generator fuel oil day tank room
- C fire area 9, intake structure
- C fire area 16, component cooling water pump room
- C fire area 22, turbine lube oil room
- C fire area 17, spent fuel pool room
- C fire are 24, auxiliary feedwater pump room

The inspectors verified that transient combustibles and ignition sources were appropriately controlled, and that the installed fire protection equipment in the fire areas corresponded with the equipment which was referenced in the Updated Final Safety Analysis Report, Section 9.6, "Fire Protection." The inspectors also assessed the material condition of fire suppression systems, manual fire fighting equipment, smoke detection systems, fire barriers and emergency lighting units. For selected areas, the inspectors reviewed documentation for completed surveillances to verify that fire protection equipment and fire barriers were tested as required to ensure availability.

The inspectors reviewed select condition reports associated with fire protection to verify that identified problems were entered into the corrective action program with the appropriate significance characterization. The inspectors also verified that planned and completed corrective actions were appropriate.

#### b. Findings

No findings of significance were identified.

#### 1R06 Flood Protection (71111.06A)

# a. Inspection Scope

The inspectors completed one inspection sample pertaining to flood protection for equipment designated in the Updated Final Safety Analysis Report to require protection from internal flooding due to failures of nonsafety-related systems. Specifically, the inspectors verified the adequacy of internal flood protection features for the emergency diesel generator 1-2 room.

The inspectors conducted walkdowns checking for applicability of the following attributes in the emergency diesel generator 1-2 room:

- holes or unsealed penetrations in floors, ceilings and walls
- common drain system and sumps, including floor drain piping
- sources of potential internal flooding that were not analyzed or were not adequately maintained

The inspectors also reviewed selected condition reports related to flood protection problems and verified that identified problems were entered into the corrective action program with the appropriate significance characterization and that planned and completed corrective actions were appropriate and implemented as scheduled.

# b. <u>Findings</u>

No findings of significance were identified.

#### 1R11 Licensed Operator Requalification (71111.11Q)

#### .1 Quarterly Review

#### a. <u>Inspection Scope</u>

The inspectors completed one inspection sample pertaining to licensed operator requalification by observing licensed operators perform job performance measures during annual examinations on March 11, 2005. The inspectors assessed the operators' ability to use plant procedures to perform the following tasks:

- C reset variable high power trip setpoints from the thermal margin monitor screens
- C manually raise volume control tank level
- C shift 4160 V AC Bus 1A from station to startup power
- C locally start and load 1-1 diesel generator
- C open control rod drive clutch power supply breakers 42-1 and 42-2

The inspectors assessed the licensee evaluators' ability to administer the job performance measures and reviewed documentation to assess the evaluators' ability to identify operator performance deficiencies.

#### b. Findings

No findings of significance were identified.

# .2 Annual Operating Test Results

#### a. Inspection Scope

The inspectors reviewed the overall pass/fail results of Job Performance Measure (JPM) operating tests, simulator operating tests, and the biennial written examination (required to be given per 10 CFR 55.59(a)(2)) administered by the licensee from February 2 through April 1, 2005. The overall results were compared with the significance determination process in accordance with NRC Manual Chapter 0609I, "Operator Regualification Human Performance Significance Determination Process (SDP)."

This inspection counts as one sample.

#### b. Findings

No findings of significance were identified.

#### 1R12 Maintenance Effectiveness (71111.12Q)

# a. <u>Inspection Scope</u>

The inspectors completed two inspection samples pertaining to maintenance effectiveness by reviewing maintenance rule implementation activities for the following system and components:

- C radiation monitoring system
- C service water control valves CV-0823 and CV-0826

The inspectors reviewed the licensee's implementation of the maintenance rule requirements to verify that component and equipment failures were evaluated and appropriately dispositioned. The inspectors also verified that the selected systems and components were scoped into the maintenance rule and properly categorized as (a)(1) or (a)(2) in accordance with 10 CFR 50.65.

The inspectors reviewed the licensee's maintenance rule performance indicators to verify that the equipment status had been appropriately categorized in accordance with the maintenance rule program; reviewed a sample of related condition reports written over the last 24 months to verify that the corrective actions for identified problems were appropriate; reviewed completed work orders and work order histories to determine if there was an adverse trend in equipment performance that could be attributed to inappropriate work practices; and, to determine if there were any common cause issues that had not been addressed. Additionally, the inspectors reviewed the licensee's performance criteria to verify that the criteria adequately monitored equipment performance.

#### b. Findings

#### Introduction

The inspectors identified a finding of very low safety significance (Green) regarding the failure to implement corrective actions in a timely manner to identify why the component cooling water heat exchanger service water outlet valves failed to open in February 2003 and March 2003. Consequently, the cause was not identified and on January 16, 2005, CV-0826, "Component Cooling Water Heat Exchanger E-54B Service Water Outlet Valve," again failed to open when control room operators initially attempted to open the valve

#### Description

Control valve CV-0826 was a normally closed valve and had a safety function to automatically open on a recirculation actuation signal. The valve actuator utilized air to close the valve and spring force to open the valve. On January 16, 2005, CV-0826 failed to open when control room operators initially attempted to open the valve using the control room handswitch. The operators were cycling the valve as part of a planned activity per plant procedures. The second attempt to open the valve from the control room was also unsuccessful. Before a third attempt, operators reduced air pressure to the valve actuator locally as directed by plant procedures and the valve was successfully opened using the control room handswitch.

The inspectors reviewed condition reports, maintenance rule evaluations, corrective actions, and work order history related to CV-0826 that had been generated since 2003. The inspectors noted that CV-0826 had failed to fully open in February 2003 when control room operators initially attempted to open the valve. The control room operators successfully opened the valve on the second attempt. Because the valve did not fully open initially but successfully opened on the second attempt, the valve was characterized as operable but degraded. Licensee personnel concluded that this failure was most likely caused by increased amounts of sand in the service water system that was deposited near the valve disc after repeated cycling of dilution water pumps.

Subsequent to the failure of CV-0826 in February 2003, the opposite train control valve CV-0823, "Component Cooling Water Heat Exchanger E-54A Service Water Outlet Valve," failed to fully open in March 2003 during a scheduled refueling outage. Licensee personnel concluded that this failure was most likely caused by binding because of clearances in the coupling between the actuator and valve stem that allowed the actuator to position the valve disc into the seat further than desired. Corrective actions for CV-0823 were implemented during the outage which included adjustments to the actuator. The valve cycled satisfactorily during subsequent testing and was declared operable.

The inspectors concluded that the failures of CV-0823 and CV-0826 were appropriately characterized and dispositioned in accordance with the licensee's maintenance rule program. Also, several corrective actions were developed which were considered appropriate. For example, one corrective action, on an interim basis, was to increase the frequency at which CV-0826 was cycled while the valve was considered operable but degraded. Other corrective actions included developing preventive maintenance activities to monitor service water piping for sand buildup; revise appropriate plant procedures to direct actions for cycling CV-0823 and CV-0826 after dilution water pumps were started; and to collect diagnostic data when CV-0823 and CV-0826 were stroked for evaluation and trending.

In September 2004, an operability re-assessment for CV-0826 was completed prior to plant startup following the 2004 refueling outage which concluded the valve was fully operable and no longer operable but degraded. This reassessment took into account the corrective actions taken to date, improved performance of CV-0826 during increased cycling, and that little to no sand had been seen near CV-0823 or CV-0826 during ultrasonic testing of the service water piping.

On November 28, 2004, CV-0826 cycled satisfactorily during routine surveillance testing. However, on January 16, 2005, CV-0826 again failed to open when the control room operators initially attempted to open the valve using the control room handswitch. Licensee personnel concluded that this failure was caused by elevated frictional loads exceeding the capability of the valve actuator and preventing the valve from opening. Licensee personnel also concluded that the elevated frictional forces were caused by probable seat deformation, high bearing loads and the presence of sand in the area between the disc and seat.

Thru a review of corrective action program documents, the inspectors noted that following the failures of CV-0823 and CV-0826 in 2003, other corrective actions were developed to overhaul the actuator and to disassemble and inspect the valve internals for CV-0823 during the 2004 refueling outage and CV-0826 during the 2006 refueling outage. Implementation of the corrective actions were scheduled for one valve at a time due to system configuration limitations and only during refueling outages.

Another corrective action was developed to factor any new information gained from the valve inspections into an apparent cause evaluation for past failures of CV-0823 and CV-0826 to document any additional actions needed to prevent future failures. However, the corrective actions to rebuild the actuator and inspect the valve internals of CV-0823 were not implemented during the 2004 refueling outage because the work was removed from the outage scope. Therefore no new information was available for an apparent cause evaluation which impaired the ability of licensee personnel to definitively identify the cause for the valves failing to open. Consequently, additional actions needed to prevent future failures were not identified and CV-0826 again failed to open when initially attempted on January 16, 2005.

#### Analysis

Failing to implement scheduled corrective actions impaired the ability to identify the cause for CV-0826 to not stroke fully open on demand and was considered a performance deficiency which warranted a significance evaluation. The inspectors determined that the finding was more than minor in accordance with Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Disposition Screening." The finding was related to the equipment performance attribute of the mitigating systems cornerstone and the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences was adversely impacted. Specifically, the reliability and capability of CV-0826 to automatically open on a recirculation actuation signal and provide the required flow to the component cooling water heat exchangers was not ensured when CV-0826 failed to open on January 16, 2005. However, in each instance that CV-0823 and CV-0826 initially failed to open, the operators were able to successfully open the valves on subsequent attempts without any corrective maintenance needed. Therefore, the inspectors concluded that a loss of safety function did not occur.

The finding was related to the cross-cutting area of problem identification and resolution for the failure to implement planned corrective actions. Corrective actions had been developed and scheduled to obtain additional information for identifying the cause of CV-0826 and CV-0823 failing to open in February 2003 and March 2003, respectively.

However, the corrective actions were not implemented during the 2004 refueling outage as scheduled. Consequently, the cause for the valves failing to open was not identified and corrected, and CV-0826 again failed to open on January 16, 2005.

Using IMC 0609, Appendix A, "SDP Phase 1 Screening Worksheet for IE [Initiating Events], MS [Mitigating Systems], and B [Barrier Integrity] Cornerstones," the inspectors determined that Mitigating Systems was the only cornerstone affected. Using the Mitigating Systems column on the Phase 1 SDP worksheet, the inspectors determined that the finding was: (1) not a design or qualification deficiency that had been confirmed to result in a loss of function per Generic Letter 91-18; (2) did not represent an actual loss of a safety function; and (3) did not screen as potentially risk significant due to a seismic, flooding, or severe weather event. Therefore, the finding screened as Green and was considered to be of very low safety significance.

#### Enforcement

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, are promptly identified and corrected. Contrary to this, the cause of CV-0826 failing to open on February 26, 2003, a condition adverse to quality, was not promptly identified and corrected. Consequently, on January 16, 2005, CV-0826 again failed to open when initially attempted by the control room operators.

However, because this violation was associated with a finding of very low safety significance and because the finding was entered into the licensee's corrective action program, this violation is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 05000255/2005004-01).

This issue was entered into the licensee's corrective action program as CAP046159. As an interim corrective action, both CV-0823 and CV-0826 are being cycled on an increased frequency to verify the valves will stroke open. Other planned interim corrective actions included installing a larger spring in the valve actuators to increase the opening force to overcome high frictional forces. Long term corrective actions included evaluating and developing appropriate modifications for the valves.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13Q)

# a. <u>Inspection Scope</u>

The inspectors completed five inspection samples regarding plant risk assessments for planned and emergent maintenance activities.

The inspectors reviewed Operator's Risk Reports and documented safety assessments to verify that plant risk assessments were completed as required by 10 CFR 50.65(a)(4) prior to commencing maintenance activities; reviewed the Operations Log and daily maintenance schedules to verify that equipment necessary to minimize plant risk was operable or available as required during the planned and emergent maintenance activities; and conducted plant walkdowns to verify that equipment necessary to

minimize risk was available for use. The inspection samples included the following activities:

- C planned maintenance activities during the week of January 2, 2005, which included emergency diesel generator 1-1 testing and high pressure safety injection system testing.
- C activities during the week of January 31, 2005, which included a planned maintenance outage on the emergency diesel generator 1-1, work on the containment spray pump P-54C breaker, and emergent maintenance on charging pump P-55A and diesel fire pump P-41.
- C activities during the week of February 13, 2005, which included planned maintenance on service water traveling screen F-4B and auxiliary feedwater pump P-8C, planned surveillance testing on emergency diesel generator 1-2 and emergent maintenance on emergency diesel generator 1-2.
- C planned preventive maintenance activities on March 8-9, 2005, for turbine driven auxiliary feedwater pump P-8B.
- C planned preventive maintenance activities on March 15-16, 2005 for emergency diesel generator 1-2.

The inspectors also verified that condition reports related to emergent equipment problems were entered into the corrective action program with the appropriate significance characterization. Select condition reports related to risk management during maintenance activities were reviewed to verify that planned corrective actions were appropriate and had been implemented as scheduled.

# b. <u>Findings</u>

No findings of significance were identified.

#### 1R14 Operator Performance During Non-Routine Evolutions and Events (71111.14)

The inspectors completed two inspection samples regarding operator performance during the non-routine events described below.

# .1 Loss of Main Condenser Vacuum

# a. Inspection Scope

The inspectors reviewed control room logs and control board indications pertaining to a loss of main condenser vacuum that occurred on January 9, 2005. The inspectors verified that the control room operators implemented the actions in Off Normal Operating Procedure 14, "Loss of Main Condenser Vacuum," Off Normal Operating Procedure 26, "Rapid Power Reduction," and various annunciator response procedures as required. The inspectors reviewed Condition Report CAP046023, "Loss of Main

Condenser Vacuum," to verify that this problem was entered into the corrective action program with the appropriate significance characterization.

# b. <u>Findings</u>

No findings of significance were identified.

#### .2 Moisture Separator Reheater Control Valves Unexpectedly Close

#### a. Inspection Scope

On January 23, 2005, all four nonsafety-related moisture separator reheater steam inlet valves unexpectedly closed and resulted in a slight loss of load with a reduction in reactor power from 100 percent to 96 percent. The inspectors reviewed control room logs, applicable data from the plant computer and plant procedures to verify that the control room operators implemented the actions in Off Normal Operating Procedure 1, "Loss of Load," as required in response to this non-routine evolution. The inspectors reviewed Condition Report CAP046288, "Spurious Closure of MSR (Moisture Separator Reheater) Supply Valves," to verify that this problem was entered into the corrective action program with the appropriate significance characterization. The inspectors reviewed condition reports for similar problems that had been previously entered into the corrective action program to verify that appropriate actions had been implemented.

# b. <u>Findings</u>

No findings of significance were identified.

#### 1R15 Operability Evaluations (71111.15)

# a. Inspection Scope

The inspectors completed five inspection samples by reviewing documented operability assessments for the following risk-significant plant equipment:

- containment spray and low pressure safety injection systems
- reactor vessel level monitoring system
- reactor protective system
- component cooling water heat exchanger service water outlet valve CV-0826
- main steam safety valves

The inspectors interviewed the cognizant engineers and reviewed the supporting documents to assess the adequacy of the operability assessments for the current plant mode or past operability as applicable. The inspectors also reviewed the applicable sections of the Technical Specifications, Updated Final Safety Analysis Report, and design basis documents to verify that the operability assessments were technically adequate and that the components remained available, such that no unrecognized increase in plant risk had occurred.

In addition, the inspectors verified that the condition reports generated for equipment operability issues were entered into the licensee's corrective action program with the appropriate significance characterization.

# b. <u>Findings</u>

No findings of significance were identified.

# 1R16 Operator Workarounds (71111.16)

#### a. Inspection Scope

The inspectors completed one inspection sample regarding operator workarounds by reviewing operator workaround OWA 05-01 "CV-0826 Component Cooling Water Heat Exchanger E-54B Service Water Outlet Valve." The inspectors verified that the functional capability of mitigating systems and the operators ability to implement offnormal and emergency operating procedures were not affected.

# b. Findings

No findings of significance identified.

# 1R19 Post Maintenance Testing (71111.19)

#### a. Inspection Scope

The inspectors completed seven inspection samples pertaining to post maintenance testing by assessing testing activities that were conducted for the following maintenance activities:

- C planned maintenance outage for emergency diesel generator 1-1
- C plannned maintenance outage for auxiliary feedwater pump P-8C
- C emergent maintenance to remove, refurbish and reinstall the diesel driver for fire pump P-41
- C planned maintenance on motor operated valve MO-3198, "Low Pressure Safety Injection Pump P-67A Inlet"
- C planned maintenance outage for auxiliary feedwater pump P-8B
- C planned maintenance outage for emergency diesel generator 1-2
- C planned maintenance on service water pump P-7A breaker 52-204

The inspectors observed portions of the post maintenance testing and reviewed documentation to verify that the tests were performed as prescribed by the work orders and test procedures; that applicable testing prerequisites were met prior to the start of the tests; and, that the effect of testing on plant conditions was adequately addressed by the control room operators.

The inspectors reviewed documentation to verify that the test criteria and acceptance criteria were appropriate for the scope of work performed; reviewed test procedures to verify that the tests adequately verified system operability; and reviewed documented

test data to verify that the data was complete, and that the equipment met the prescribed acceptance criteria.

Further, the inspectors reviewed condition reports to verify that post maintenance testing problems were entered into the corrective action program with the appropriate significance characterization. For select condition reports, the inspectors verified that the corrective actions were appropriate and implemented as scheduled.

# b. Findings

No findings of significance were identified.

# 1R20 Refueling and Other Outage Activities (71111.20)

#### a. Inspection Scope

The inspectors completed one baseline inspection sample regarding other outage activities during a forced outage that occurred from January 9 through 19, 2005, after control room operators manually tripped the plant due to a loss of condenser vacuum. The plant was maintained in Mode 3, "Hot Shutdown," while licensee personnel investigated the reason for the loss of vacuum. The inspectors monitored maintenance activities to verify that plant equipment necessary to minimize plant risk was maintained available and reviewed documentation to verify that appropriate cleanliness controls were implemented during maintenance inside containment. After necessary repairs were completed, the inspectors observed portions of reactor startup activities and main generator synchronization to the electrical grid to verify that the evolutions were completed in accordance with plant procedures.

The inspectors reviewed condition reports to verify that problems identified during the outage were entered into the corrective action program with the appropriate significance characterization. For select condition reports, the inspectors verified that appropriate corrective actions had been implemented.

#### b. Findings

No findings of significance were identified.

# 1R22 <u>Surveillance Testing</u> (71111.22)

#### a. Inspection Scope

The inspectors completed six inspection samples by assessing surveillance testing that was conducted on the following risk-significant plant equipment:

- C containment isolation check valves
- C 2400 volt bus 1C undervoltage relays
- C emergency diesel generator 1-1
- C battery charger number 4

- C diesel fire pump P-41
- C reactor coolant system

The inspectors observed portions of the testing to verify that appropriate test procedures were utilized and reviewed documented test data to verify that test acceptance criteria were satisfied.

The inspectors reviewed applicable portions of Technical Specifications, the Updated Final Safety Analysis Report, and design basis documents to verify that the surveillance tests adequately demonstrated that the plant equipment could perform required safety functions.

Further, the inspectors reviewed selected condition reports regarding surveillance testing activities. The inspectors verified that the identified problems were entered into the licensee's corrective action program with the appropriate significance characterization and that the planned and completed corrective actions were appropriate.

# b. Findings

No findings of significance were identified.

# 1R23 <u>Temporary Plant Modifications</u> (71111.23)

#### .a Inspection Scope

The inspectors completed three baseline inspection samples by reviewing the following temporary modifications:

- C Temporary Modification 2005-001, "Swap Core Exit Thermocouple 27 With Core Exit Thermocouple 32"
- C Temporary Modification 2005-003, "Temporary Leak Repair on Atmospheric Dump Valve Instrument Air Supply Header"
- C Temporary Modification 2005-005, "Disabling the Automatic Re-closure of Pressurizer Heater Circuit Breaker 152-211"

The inspectors reviewed the design documents, 10 CFR 50.59 safety screening, Updated Final Safety Analysis Report, and applicable technical specifications and their bases to verify that the temporary modifications did not affect the operability of the related systems and other interfacing systems. The inspectors reviewed documentation and conducted plant walkdowns of accessible equipment using applicable procedures and plant drawings to verify that the modifications were implemented as designed. Post modification testing results were reviewed to verify that the systems functioned as intended after the modifications were implemented.

#### b. Findings

No findings of significance were identified.

# 1EP6 <u>Emergency Preparedness Drill Evaluation</u> (71114.06)

The inspectors completed two baseline inspection samples by evaluating the emergency preparedness drills described below.

# .1 <u>Tabletop Drill In Technical Support Center</u>

# a. Inspection Scope

The inspectors observed a training drill on January 26, 2005, in the Technical Support Center in which the site emergency director was required to implement the emergency plan in response to simulated plant conditions. Emergency Preparedness personnel had pre-designated that the opportunities for the site emergency director to classify the event and make protective action recommendations would be evaluated and included in the performance indicator data regarding drill and exercise performance.

The inspectors verified that the site emergency director classified the emergency condition and completed protective action recommendations in an accurate and timely manner as required by the emergency plan implementing procedures. The inspectors reviewed documentation to verify that the performance indicator data regarding drill and exercise performance was accurately accounted for.

# b. <u>Findings</u>

No findings of significance were identified.

# .2 1<sup>st</sup> Quarter 2005 Emergency Planning Drill

# a. <u>Inspection Scope</u>

The inspectors observed emergency response personnel in the Technical Support Center and the Emergency Offsite Facility during an emergency planning drill conducted on February 22, 2005. Emergency Preparedness personnel had pre-designated that the opportunities to classify the event and make protective action recommendations would be evaluated and included in the performance indicator data regarding drill and exercise performance.

The inspectors verified that the emergency classifications, notifications to offsite agencies, and the development of protective action recommendations were completed in an accurate and timely manner as required by the emergency plan implementing procedures. The inspectors also verified that the drill was conducted in accordance with the prescribed sequence of events and that the drill objectives were met.

The inspectors observed the post-drill critique in the Technical Support Center and the Emergency Offsite Facility to verify that emergency response personnel and drill evaluators adequately self-identified performance problems. The inspectors reviewed the post-drill critique report to verify that the data regarding the indicator for drill and exercise performance was accurate. Condition reports generated for identified drill

performance problems were reviewed to verify that the problems were entered into the corrective action program with the appropriate significance characterization.

# b. <u>Findings</u>

No findings of significance were identified.

# 4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

# a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that condition reports were being generated and entered into the corrective action program with the appropriate significance characterization. For select condition reports, the inspectors also verified that identified corrective actions were appropriate and had been implemented or were scheduled to be implemented in a timely manner commensurate with the significance of the identified problem.

# b. Findings

No findings of significance were identified.

# .2 <u>Annual Sample for Follow-up Inspection</u>

#### a. Inspection Scope

The inspectors completed two inspection samples regarding annual reviews of problem identification and resolution evaluations by reviewing the following cause evaluations:

- Root Cause Evaluation RCE000367, "Inadvertent Safety Injection Actuation During Surveillance Test RO-12"
- Apparent Cause Evaluation ACE003392, "Component Cooling Water P-52A Secured Due to Failure of the Outboard Motor Bearing"

The inspectors verified that: (1) the problems were accurately identified; (2) the root cause, apparent cause, and contributing causes were adequately justified; (3) extent of condition and generic implications were appropriately addressed; (4) previous occurrences were considered; and (5) corrective actions were appropriately focused to address the problem and implemented commensurate with the safety significance of the issue.

# b. <u>Findings</u>

No findings of significance were identified.

# 4OA3 Event Follow-up (71153)

The inspectors completed four inspection samples related to event follow-up as described below.

#### .1 Manual Reactor Trip For Loss of Condenser Vacuum

# a. <u>Inspection Scope</u>

The inspectors responded to the control room on January 9, 2005, after being notified that the control room operators manually tripped the reactor because of lowering main condenser vacuum. The inspectors walked down the control panels to verify that plant parameters were stable and as expected, and to verify that safety-related equipment was operating as expected. The inspectors reviewed control room logs, plant procedures, and the event notification that was provided to the NRC, and observed post-trip response actions in the control room. The inspectors verified that control room operators implemented the required actions in emergency operating procedures while responding to and recovering from the plant trip, and that the plant trip was communicated to the NRC in a timely and accurate manner. The inspectors reviewed Condition Report CAP046023, "Loss of Main Condenser Vacuum," to verify that this problem was entered into the corrective action program with the appropriate significance characterization.

#### b. Findings

No findings of significance were identified.

# .2 (Closed) Licensee Event Report (LER) 2004-003: Main Steam Safety Valves Exceed Lift Setpoint Acceptance Band

During main steam safety valve setpoint testing, 11 out of 24 valves had as-found lift pressures that were above the acceptance band. Technical Specification Limiting Condition of Operation 3.7.1 required a minimum of 23 out of 24 valves to be operable in Modes 1, 2 and 3. Since 11 of the 24 valves were likely inoperable during the last operating cycle, this was reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

The inspectors reviewed the LER to verify that the event was accurately described, to determine if any violations of NRC requirements occurred and to assess the appropriateness of corrective actions. A cause evaluation, significance evaluation and long-term corrective actions were incomplete when this LER was submitted and were to be provided in a supplemental report. Therefore, the inspectors assessed the significance of any potential violations of NRC requirements and appropriateness of long term corrective actions after the supplemental report was issued which is documented in Section 4OA3.3 of this report.

This issue was entered into the licensee's corrective action program as Condition Report CAP045638, "RV-0720 AS -Found Test Exceeds Acceptance Range of RM-29." For immediate corrective actions, all 11 safety valves that failed to lift within the acceptance criteria were adjusted, as necessary, and retested satisfactorily which restored compliance with Technical Specifications.

The inspectors identified one inaccurate statement in the LER section describing the cause of the event. The inspectors noted that this same error was also contained in the supplemental report referenced in Section 4OA3.3 of this report. Specifically, the report indicated that during the second lift attempt, all but two main steam safety valves lifted within the as-found acceptance criterion, and for those two they lifted below the acceptance band. However, the data in Table 1 attached to the LER did not support that statement. The data in Table 1 was verified to be correct and therefore, only one main steam safety valve lifted below the as-found acceptance band on the second lift attempt instead of two as stated. This inaccurate statement did not change the significance of the event and therefore was considered to be an administrative error of minor significance. This LER is closed.

# .3 (Closed) LER 2004-003-01: Main Steam Safety Valves Exceed Lift Setpoint Acceptance Band

This supplemental report provided updated information pertaining to the cause evaluation, significance evaluation and long-term corrective actions for 11 out of 24 main steam safety valves which lifted above the acceptance band during setpoint testing. Technical Specification Limiting Condition of Operation 3.7.1 required a minimum of 23 out of 24 valves to be operable in Modes 1, 2 and 3. Since 11 of the 24 valves were likely inoperable during the last operating cycle, this event was initially reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications. The inspectors reviewed this supplemental report to determine if any violations of NRC requirements occurred and to assess long term corrective actions.

Licensee personnel concluded that a combination of disc to seat sticking, and valve spindle binding/bonding at the guide bearing caused the high lift setpoints. Although 11 out of 24 valves were likely inoperable during the previous operating cycle, a condition prohibited by Technical Specifications, a subsequent evaluation concluded that during events which credited operation of the main steam safety valves neither the acceptance criteria nor plant design limits would have been challenged with this as-found condition. Consequently, this event had little to no potential to impact plant safety. Also, there were no actual safety consequences and the event had no impact on the regulatory process and did not involve willfulness. Therefore, this event constituted a violation of Technical Specifications which was determined to be of minor significance in accordance with Section IV of the NRC Enforcement Policy.

As a long-term corrective action, licensee personnel developed a maintenance and testing plan to test the main steam safety valves on a more frequent basis which was considered appropriate. This LER is closed.

# .4 (Closed) LER 2005-001: Reactor Protection System and Auxiliary Feedwater System Actuation

On January 9, 2005, a rapid plant down power was commenced from full power due to an unexpected lowering of condenser vacuum. The reactor was subsequently manually tripped from 75 percent power. Following the trip, the auxiliary feedwater system started automatically to maintain steam generator water level. All safety systems functioned as expected during the plant trip and the plant was stabilized in Mode 3. A nonsafety-related low pressure turbine casing drain line, which was routed through the main condenser, failed and allowed air in-leakage into the main condenser which caused the lowering vacuum. Corrective actions were implemented to permanently plug the drain line. Operator response to this event was assessed and documented in Section 4OA3.1 of this report and no findings of significance were identified. This event did not constitute a violation of NRC requirements. This problem was entered into the licensee's corrective action program as Condition Report CAP046023, "Loss of Main Condenser Vacuum." This LER is closed.

# 4OA4 Cross Cutting Aspects of Findings

.1 A finding described in Section 1R12 of this report had, as a primary cause, a problem identification and resolution deficiency. Licensee personnel failed to implement planned corrective actions as initially scheduled which impaired the ability to identify the cause of service water control valves CV-0823 and CV-0826 failing to open. Consequently, the cause was not corrected and CV-0826 again failed to open on January 16, 2005.

#### 4OA6 Meetings

#### .1 Exit Meeting

The inspectors presented the inspection results to Mr. G. Hettel and other members of licensee management on March 31, 2005. Licensee personnel acknowledged the findings presented. The inspectors asked licensee personnel whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

# .2 Interim Exit Meeting

Interim exit was conducted for:

 Licensed Operator Requalification 71111.11B with Mr. J. Walker, Licensed Operator Requalification Training Supervisor, on April 11, 2005, via telephone.

ATTACHMENT: SUPPLEMENTAL INFORMATION

#### SUPPLEMENTAL INFORMATION

# **KEY POINTS OF CONTACT**

# Licensee

- D. Malone, Site Vice President
- P. Harden, Site Director
- T. Blake, Emergency Preparedness Supervisor
- M. Carlson, Engineering Director
- G. Hettel, Plant Manager
- L. Lahti, Licensing Manager
- D. Malone, Regulatory Affairs
- K. Smith, Operations Manager
- J. Walker, Licensed Operator Requalification Training Supervisor
- K. Yeager, Assistant Operations Manager

# Nuclear Regulatory Commission

D. Jaffe, Project Manager, NRR

# LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>		
2005004-01 NC\		Failure to implement corrective actions which impaired the ability to identify the cause of CV-0823 and CV-0826 failing to open (Section 1R12)
Closed		(666.6.1. 1.1.2)
2005004-01 N	NCV	Failure to implement corrective actions which impaired the ability to identify the cause of CV-0823 and CV-0826 failing to open (Section 1R12)
05000255/04-003 L	ER.	Main Steam Safety Valves Exceeded Lift Setpoint Acceptance Band (Section 4OA3.2)
05000255/04-003-01 L	ER.	Main Steam Safety Valves Exceeded Lift Setpoint Acceptance Band (Section 4OA3.3)
05000255/05-001 L	.ER	Reactor Protection System and Auxiliary Feedwater System Actuation (Section 4OA3.4)
Discussed		

#### Discussed

None

#### LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a documents on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

#### 1R04 Equipment Alignment

# Plant Procedures

FPSP-MO-1, Attachment 2; Fire Suppression Water System Valve Alignment Verification Checkoff Sheet; Revision 6 SOP-12, Attachment 14; Auxiliary Feedwater System; Revision 44

# Condition Reports Reviewed to Assess Corrective Actions

CAP037043; Validity of Primary Coolant System Water Inventory Calculation Questionable When Less Than NOT, NOP

CAP045514; Possible Non-Conservative Isophase Bus Cooling System Alignment Allowed in SOP-8

CAP045585; Inspections Not Incorporated Into Service Water and Fire Protection Master Plan

CAP040305; E-22A EDG 1-1 Jacket Water Cooler Tubes Found Blocked In Visual Inspection

CAP041121; Pitting Observed On Valve in Diesel K-6B Cylinder Head 4R

CAP046523; OE: Crystal River and LaSalle Plants Experienced Identical Single Failure Issues

CAP046836; Checklist CL-16, CCW System Discrepancies

CAP047068; Valves Not Sealed as Described in Additional Information Section of Checklist 12.5

CAP047056; Oil Observed on Coupling Under P-8C Auxiliary Feedwater Pump Outboard Bearing

# 1R05 Fire Protection

#### Plant Procedures

ONP25.2; Off-Normal Procedure - Fire Which Threatens Safety-Related Equipment Fire Areas

#### Miscellaneous Documents

EA-RJC-92-0130; Analysis of the Affect of a Fire On the Fire Barrier Penetration Seal Number FZ-0130; Revision 0

Palisades Nuclear Plant Fire Hazards Analysis; Revision 5

# Condition Reports Reviewed to Assess Significance Characterization of Identified Problems

CAP046733; Condulet Cover Missing on Conduit Which Penetrates Fire Barrier

#### 1R06 Flood Protection

# Condition Reports Reviewed to Assess Corrective Actions

CAP040173; PPAC RWS209 Has Questionable Test Conditions and Lacks Acceptance Criteria

CAP040206; Dirty Waste Drain Tank Room Boot Seal Failure

# 1R11 Licensed Operator Requalification

PL-OPS-SPS-001J; Shift 4160 V AC Bus 1A From Station To Startup Power

PL-OPS-CVC-007J; Manually Raise Volume Control Tank Level

PL-OPS-RPS-008J; Reset Variable High Power Trip Setpoints From Thermal Margin Monitor Screens On Panel C-27

PL-OPS-EOP-004J; Open Control Rod Drive Clutch Power Supply Breakers 42-1 and 42-2

PL-OPS-EDG-003J; Locally Start and Load 1-1 Diesel Generator

#### 1R12 Maintenance Effectiveness

EGAD-EP-10; Maintenance Rule Scoping Documents for the Radiation Monitoring System and the Critical Service Water System; Revision 3

Health and Status Report for Radiation Monitoring System up to January 20, 2005 List of Work Orders on the Radiation Monitoring System from January 1, 2003 to January 24, 2005

# Condition Reports

Corrective Action Documents List for Radiation Monitoring System Since January 1, 2004

CAP046159; CCW HX E-54B SW Outlet Failed to Open

CAP033644; CCW HX Service Water Outlet CV-0826 Inoperable

CAP034100; CV-0823 Failed to Open

CAP035774; Evaluate Potential Adverse Maintenance Rule Trend - Service Water Valves

CAP046382; Service Water Hi Cap CV-0826 Unexpected Response to Closed Limit Adjustment

CAP036376; Stroke Time Increase on CV-0826 (CCW HX E-54B SW Outlet)

CAP046941; Maintenance Rule Goal Setting for CCW HX Outlet Valves CV-0823 and CV-0826

# 1R13 Maintenance Risk Assessments and Emergent Work Evaluation

Operator's Risk Reports; January 3-7, 2005; January 31 through February 4; February 14-18; March 8-9, 2005; March 15-16, 2005

Daily Maintenance Work Schedules; January 3-7, 2005; January 31 through February 4; February 14-18; March 8-9, 2005; March 15-16, 2005

Operations Log entries; January 3-7, 2005; January 31 through February 4; February 14-20; March 8-9, 2005; March 15-16, 2005

Administrative Procedure 4.02 Safety Assessments; January 3-7, 2005; January 31 through February 4; February 14-18; March 8-9, 2005; March 15-16, 2005

# Condition Reports Reviewed to Assess Corrective Actions

CAP043361; NOS Finding: Management Made an Operational Decision With Faulted Information

# 1R14 Operator Performance During Non-Routine Evolutions and Events

Annunciator Response Procedure - 1; Number 11; Vacuum Lo; Revision 54 Annunciator Response Procedure - 1; Number 10; Vacuum Pretrip; Revision 54 Work Order 24011614; Replace Reheater Control MX Relay and Socket; May 11, 2001

#### Condition Reports

CPAL990305; Spurious Closure of MSR Reheat Steam Valves CAP005125; Moisture Separator Reheater Control Valves Failed Closed

# 1R15 Operability Evaluations

CAP038168; Basis For Acceptability of Containment Spray Pump Test Method Not Found

CAP040877; Environmental Qualification Life Questions for RVLMS Probes LE-0101A and LE-0101B

CAP046029; High Start-up Rate Trip Initiated For 'B' Channel Reactor Protection System But Not 'D' Channel

CAP046052; Spurious Reactor Protection System Alarms

CAP046146; Rod Withdrawal Prohibit/ 'B' Reactor Protection System High Start-up Rate Pre-trip Alarms Received

CPAL9902938; Received Unexpected Variable High Power (trip, pre-trip), High Start-up Rate (pre-trip) on 'D' Channel, Rod Withdrawal Prohibit

CAP046159; CV-0826, CCW HX E-54B Service Water Outlet Failed to Open

CAP045476; RV-0704 Did Not Lift Within As-Found Setpoint Tolerance on Second Attempt

EA-CA026226-01; Past Operability Evaluation of Main Steam Safety Valves Exceeding Lift Setpoint Acceptance Criteria; Revision 8

#### 1R16 Operator Workaround

OWA 05-01; CV-0826, CCW HX E-54B Service Water Outlet

#### 1R19 Post Maintenance Testing

#### Work Orders

WO24323357; POS-0877, VC-11 and E-22B SW Inlet Valve Position Switch; 2/1/2005 WO2442349; K-6A Temperature Instrument Non-LCO Work; 2/1/2005 WO24420737; K-6A EDG 1-1; 2/1/2005 WO24420924; K-6AG EDG 1-1; 2/1/2005 WO24420921; K-6A EDG 1-1; 2/1/2005 WO24421478; Replace D/G Service Water SV-0884A; 2/1/2005 WO24420758; G1-1/MVM D/G 1-1 Voltage Adjust Motor WO24422922; CV-0884, Perform Diagnostic Testing WO24520446; Fire Pump P-41 Diesel Driver WO24421183; CV-0736A AFW FC P-8C to E-50B; 2/17/2005 WO24421183; EMA-1209 AFW Pump P-8C Motor; 2/17/2005 WO24214485; 152-209 AFW Pump P-8C; 2/17/2005 WO24422649; MO-3098 Safety Injection Pump P-67A Inlet from SIRW; 2/24/2005

WO24423108; MV-DE127, D/G1-1 Fuel Oil Day Tank T-25A Inlet; 2/2/2005

2/24/2005 WO24422104; PPAC ESS200 VOP-3198 Low Pressure Safety Injection Pump P-67A Inlet: 2/24/2005

WO24421913: PPAC SPS328 Preventive Maintenance for Breaker/Starter 52-2239:

WO24322142; Auxiliary Feedwater P-8B Steam Supply Valve Indication Light; 3/8/2005

WO24323642; K-8/P-8B, coupling Inspection/Lube PM; 3/8/2005

WO24422432; K-13(P-8B/K-8) Governor Replacement PM; 3/8/2005

WO24422118; K-8; Lubricate Governor Linkage; 3/8/2005

WO24521386; FUZ/W006-1; Replace Both Auxiliary Feedwater Pump Turbine Steam Valve Control Fuses; 3/9/2005

WO24420674; ASM-2B Diesel Generator Air Starting Motor; 3/15/2005

WO24420277; EG-30 Diesel Generator 1-2 Gauge Panel; 3/15/2005

WO24323356; POS-0876 VC-10 and E-22A Service Water Inlet Valve Position Switch

WO24423367; P-7A Service Water Pump; 3/23/2005

WO24422409; 152-204 Service Water Pump P-7A; 3/23/2005

#### Plant Procedures

MO-7A-1; Emergency Diesel Generator 1-1; Revision 60

MO-7B; Fire Water Pumps P-9A, P-9B and P-41; Revision 28

QO-21; Inservice Test Procedure Auxiliary Feedwater Pumps; Revision 24

MO-7A-2; Emergency Diesel Generator 1-1; Revision 57

QO-14; Inservice Test- Service Water Pumps; Revision 23

# Condition Reports Reviewed to Assess Significance Characterization of Identified Problems

CAP046711; Out of Spec Shaft Alignment Between Fire Pump P-41 and Diesel Driver K-10

#### Condition Reports Reviewed to Assess Corrective Actions

CAP047036; FUZ/W006-1 Removed Fuses Questionable if Arcing Occurred

CAP047028; Found Incorrect Fuses Installed in Auxiliary Feedwater Pump P-8B Control Circuit

CAP047048; Potentially Undersized Fuses Installed in Auxiliary Feedwater Pump Turbine Control Valve Control

CAP047118; 1-2 Diesel Generator Cylinder Exhaust Temperatures greater than 150 degrees F Difference

# 1R20 Refueling and Outage Activities

#### Plant Procedures

GOP-3; Mode 3 \$ 525°F to Mode 2; Revision 18

GOP-4; Mode 2 to Mode 1; Revision 15

SOP-1A, Attachment 6; Check List 1.4; Containment Closeout Walk-Through; January 14, 2005

# Condition Reports Reviewed To Assess Corrective Actions

CAP046028; Slower Than Expected Rod Drop Times For Some Control Rods

CAP046163; Number 6 Turbine Bearing Slop Drain Not Capped (Sealed) as Expected

CAP045946; EK-0906, Incore Alarm, Receive in Control Room Unexpectedly for Incore #27

CAP046025; CV-0782, ADV Did Not Fully Close Post Trip

CAP046026; The Green Rod Fully Inserted Light For Control Rod Drive 20 Did Not Light

CAP044376; Letdown Isolation Failed QO-27 Acceptable Stroke Time Limits

CAP044867; Relief Valve Work Orders Schedule Past Technical Specification

ADMIN 5.5.7 Due Date

#### 1R22 Surveillance Testing

# Completed Surveillance Test Procedures

XO-11; Containment Isolation Check Valve Test; January 26, 2005

RE-137; Calibration of Bus 1C (1D) Undervoltage and Time Delay Relays; February 1, 2005

RO-128; Diesel Generator 1-1 24-hour Load Run; January 4, 2005

RE-136; Performance Test - Battery Charger No 4 (ED-18); January 7, 2005

RO-52; Fire Suppression Water System Functional Test and Fire Pump Capacity Test; February 18, 2005

DWO-1; Operator's Daily/Weekly Items Modes 1, 2, 3, and 4; February 17, 2005

#### Miscellaneous Documents

EA-FC-731-01; Pressurizer Level Instrument Calibration; Revision 0

# Condition Reports Reviewed to Assess Corrective Actions

CAP045973; During Emergency Diesel Generator 24 Hour Run, Oil Level Did Not Change As Expected

CAP047007; RO-52 Basis Document Not Updated to Reflect Change in Speed Criteria

# <u>1R23</u> <u>Temporary Plant Modifications</u>

TM-2005-001; CET Qualified Cable Swap at Reactor Head for CET #27 and CET #32 Work Order 24520051; Incore Neutron Detection

TM-2005-005; Disabling the Automatic Re-Closure of Pressurizer Heater Circuit Breaker 152-211

SDR-05-130; 50.59 Screening for Disabling the Automatic Re-Closure of Pressurizer Heater Circuit Breaker 152-211

TM-2005-003; Temporary Leak Repair of Instrument Air Header Downstream of Instrument Air System Header Isolation Valve MV-CA10007

SDR-05-0056; Temporary Leak Repair of Instrument Air Header Downstream of Instrument Air System Header Isolation Valve MV-CA10007

MSM-M-24; Temporary Repair of Liquid or Gas Leaks on Plant Systems, Parts, Components, and Equipment; Revision 7

#### Condition Reports Reviewed to Assess Corrective Actions

CAP046047; Incore INCE-52M13 Stalk is Stretched Causing Failure

CAP047071; Discrepancies Identified With Temporary Modification (TM-2005-001)

## 1EP6 Emergency Preparedness Drill Evaluation

#### Emergency Plan Implementing Procedures

EI-1; Emergency Classifications and Actions; Revision 44

EI-3; Communications and Notifications; Revision 20

# Miscellaneous Documents

Tabletop Drill, Technical Support Center; Scope and Objectives; January 2005

Tabletop Drill, Technical Support Center; Timeline; January 2005

1st Quarter 2005 Drill Scenario Timeline

Scope and Objectives; 1st Quarter 2005 Emergency Planning Drill; February 22, 2005

#### Condition Reports Reviewed to Assess Significance Characterization of Identified Problems

CAP046844; Untimely Protective Action Recommendation

CAP046832; Personnel Accountability Computer Program Unavailable CAP046834; OSC Accountability Computer May Not Be Working Properly

CAP046955; Emergency Notification Form Inconsistencies CAP046869; Understanding of Dose Assessment Inputs During EP Drill

# 4OA2 Problem Identification and Resolution

RCE000367; Inadvertent Safety Injection Actuation During Surveillence Test RO-12 ACE003392; Component Cooling Water P-52A Secured Due to Failure of the Outboard Motor Bearing

#### 4OA3 Event Follow-up

# <u>Licensee Event Reports</u>

LER 2004-003; Main Steam Safety Valves Exceed Lift Setpoint Acceptance Band; December 17, 2004

LER 2005-001; Reactor Protection System and Auxiliary Feedwater System Actuation; March 3, 2005

LER 2004-003-01; Main Steam Safety Valves Exceed Lift Setpoint Acceptance Band; March 28, 2005

#### Plant Procedures

ARP-3; Number 1-1; Auxiliary Feedwater System Status Array "A"; Revision 4

EOP-1; Standard Post Trip Actions; Revision 12

EOP-2; Reactor Trip Recovery; Revision 12

#### Miscellaneous Documents

Notification To Regulatory Agencies; Event Notification #41319; January 9, 2005

8 Attachment

# LIST OF ACRONYMS USED

ADAMS Agency-Wide Document and Management System

CAP Corrective Action Program
CFR Code of Federal Regulations
IMC Inspection Manual Chapter
LER Licensee Event Report
NCV Non-Cited Violation

NMC Nuclear Management Company
PARS Publicly Available Records
PNP Palisades Nuclear Power Plant
SDP Significance Determination Process

9 Attachment