



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

May 29, 2008

Mr. Christopher J. Schwarz  
Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

**SUBJECT: PALISADES NUCLEAR PLANT PROBLEM IDENTIFICATION AND  
RESOLUTION INSPECTION 05000255/2008-006**

Dear Mr. Schwarz:

On April 18, 2008, the U. S. Nuclear Regulatory Commission (NRC) completed a routine biennial PI&R inspection at your Palisades Nuclear Plant. The enclosed report documents the inspection results, which were discussed on April 18 with you and 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.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The team concluded that problems were properly identified, evaluated, and resolved within the corrective action program. However, during the inspection, several examples of minor problems were identified, including some issues of low significance that were not being entered into the corrective action program, some trend codes that were not being entered in the database, and some due dates for low priority drawing revisions had been lost. Based on some recurring issues, a substantive cross-cutting issue in PI&R that was opened and closed in 2007, and inspector and self-revealing findings, the inspection team concluded that improvement in the identification of issues and evaluations of problems was needed. The plant staff had taken actions to improve implementation of the corrective action program including training the staff on evaluating issues.

C. Schwarz

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Sincerely,

*/RA/*

Christine A. Lipa, Chief  
Projects Branch 4  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000255/2008-006  
w/Attachment: Supplemental Information

cc w/encl: Senior Vice President  
Vice President Oversight  
Senior Manager, Nuclear Safety & Licensing  
Senior Vice President and COO  
Assistant General Counsel  
Manager, Licensing  
W. DiProfio  
W. Russell  
G. Randolph  
Supervisor, Covert Township  
Office of the Governor  
T. Strong, Chief, State Liaison Officer, State of Michigan  
Michigan Department of Environmental Quality -  
Waste and Hazardous Materials Division  
Michigan Office of the Attorney General

C. Schwarz

-2-

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Vice President Oversight  
Senior Manager, Nuclear Safety & Licensing  
Senior Vice President and COO  
Assistant General Counsel  
Manager, Licensing  
W. DiProfio  
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Supervisor, Covert Township  
Office of the Governor  
T. Strong, Chief, State Liaison Officer, State of Michigan  
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SUBJECT: PALISADES NUCLEAR PLANT PROBLEM IDENTIFICATION AND  
RESOLUTION 05000255/2008-006

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000255/2008-006

Licensee: Entergy Nuclear Operations, Inc.

Facility: Palisades Nuclear Plant

Location: Covert, MI

Dates: March 31 through April 18, 2008

Inspectors: R. Lerch, Project Engineer, DRP  
Z. Falevits, Reactor Inspector, DRS  
K. Walton, Operator Licensing Inspector, DRS  
J. Neurauter, Reactor Inspector, DRS

Approved by: C. Lipa, Chief  
Branch 4  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000255/2008-006; 03/31/2008 – 04/18/2008; Palisades Nuclear Plant, Routine Biennial Problem Identification and Resolution Inspection.

This inspection was conducted by four regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### Identification and Resolution of Problems

The inspection team concluded that, based on the samples reviewed, the corrective action (CA) program was capable of effectively identifying, evaluating, and resolving issues. Minor examples of inadequate implementation of the processes were observed and the inspection record indicated that several issues were self-revealed or identified by external organizations. The transition from Nuclear Management Company (NMC) to Entergy had presented challenges, however no significant problems occurred and new management has taken actions to improve CA program performance. Licensee performance with operating experience, self assessments, audits and maintaining a safety conscious work environment was effective.

#### 4. OTHER ACTIVITIES (OA)

##### 4OA2 Problem Identification and Resolution (71152B)

Completion of sections a. through d. constitutes one biennial sample of problem identification and resolution as defined by Inspection Procedure 71152.

##### a. Assessment of the Corrective Action Program Effectiveness

##### (1) Inspection Scope

The inspectors reviewed the licensee's Corrective Action (CA) program implementing procedures and attended CA program meetings to assess the implementation of the CA program by site personnel. This included the transition activities associated with the change in plant ownership from NMC to Entergy in 2007. This transition necessitated changes in personnel, procedures, computer programs, communications, and the migration of data.

The inspectors reviewed risk and safety significant issues in the licensee's CA program since the last NRC Problem Identification and Resolution (PI&R) inspection in February 2006. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors reviewed condition reports (CRs) generated as a result of daily plant activities. In addition, the inspectors reviewed CRs and a selection of completed investigations from the licensee's various investigation methods, which included root cause, apparent cause, common cause, and trending performance investigations. The inspectors also reviewed issues identified through NRC generic communications, department self assessments, licensee audits, operating experience reports, and NRC documented findings.

The inspectors performed a five year review of 2.4kV, 480Vac, 120Vac, and 125Vdc circuit breaker-related issues documented in corrective action documents to assess the

licensee staff's efforts in monitoring for any system degradation due to aging. The inspectors performed partial system walkdowns including the 125Vdc safety-related batteries. Also, inspectors followed up on the licensee's investigation results for the Inspection Procedure 95001 supplemental inspection from 2007 documented in inspection report 255/2007003.

During the reviews, the inspectors determined whether the licensee staff's actions were in compliance with the facility's corrective action program and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors determined if licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CA program in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether the licensee staff assigned the appropriate level of priority and investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected condition reports, completed investigations, and NRC findings, including non-cited violations.

(2) Assessment – Effectiveness of Problem Identification

Based on the information reviewed, the inspectors concluded that the threshold for initiating condition reports was good and well below the plant procedural requirements. Nevertheless, licensee expectations for CR initiation were not being consistently met as evidenced by CRs prompted by NRC inspectors and conflicting procedural instructions for generating CRs. Inspectors observed several other vulnerabilities as discussed below under observations.

The inspectors concluded that the program was effective at identifying issues. However, a review of the NRC findings identified in the last two years which were self-revealing or identified by external organizations illustrated that improvement could be made. The degraded service water pump shaft was an example of an issue where identification and resolution were prompted, by the NRC. The shaft was replaced in 2007.

## **OBSERVATIONS**

### Threshold for Initiation of Condition Reports

Electrical Testing Procedures (SPS-E-23 (Section 5.11.2.b.3), SPS-E-24 (Section 5.10.3), and SPS-E-25 (Section 5.12.2.b.3)) referenced initiation of a condition report if discrepancies are NOT resolved upon discovery. The licensee's corrective action program requires initiation of a condition report for any testing discrepancy. Interviews with maintenance personnel indicated that condition reports were being generated for all discrepancies. Licensee initiated CR-PLP-2008-1680 to revise these procedures to meet Entergy condition report requirements and expectations.

### Vendor Supplied Calculations

The inspectors identified vulnerability in the area of licensee acceptance review of engineering products from outside organizations by plant design engineering. Areas of specific focus were engineering calculations and engineering reports. The licensee typically accepts individual vendor supplied engineering calculations and reports after

review comments are reconciled by the licensee and vendor. Programmatic concerns regarding the vendor's preparation, review, and approval processes are not readily apparent from the licensee review form attached to an individual engineering calculation or report. The inspectors determined that licensee procedures EN-DC-126, "Engineering Calculation Process, and EN-DC-147, "Engineering Reports," do not require that technical concerns with vendor supplied calculations and reports be addressed within the licensee's corrective action process. As a result, licensee-identified issues are typically not trended as to their technical or programmatic significance.

#### Protective Relay Calibration Issues

During interviews and reviews of relay calibration CRs initiated for the Bus 1D protective relays in March 2008, the inspectors noted that relay calibration instructions do not ensure that the "As-Left" protective device settings are left set centered in their allowable range (i.e. midpoint of acceptable calibration range). The team noted during this inspection, that numerous protective relays were found to be out of tolerance (ref. CR-PLP-2008-01349). These over-current, under-voltage and differential protective relays are on a 3 year schedule for calibration and leaving the "As Left" settings away from the center of the range could be a contributing factor for them being out of tolerance. Upon discovery, the licensee added initiated CA #6 to CR-PLP-2008-1349 to revise related site protective relay test instructions (procedures, work instructions, work order attachments, etc) to include direction to ensure the "as-left" protective device settings are set as close as achievable to the specified test record set point (i.e. midpoint of acceptance range).

No findings of significance were identified.

#### (3) Assessment – Effectiveness of Prioritization and Evaluation of Issues

Inspectors reviewed the classification of condition reports for resolution ranging from "A" for the most significant to "D," the least significant. Inspectors also attended the Condition Review Group (CRG) meetings to observe the management review of CR classification. All CRs were assigned appropriate prioritization and evaluation levels with some minor exceptions described under observations below.

The inspectors determined that the evaluations in root cause reports and apparent cause reports that were reviewed were adequate. The corrective actions addressed the identified problems and the timeliness of corrective actions was appropriate to the safety significance. However, the inspectors did identify one corrective action with two instances where actions were not properly incorporated. The licensee documented this deficiency on condition report CR-PLP-2008-01520. The inspectors determined that some corrective actions went beyond their due dates but that the licensee had a process to grant permission to these extensions. The use of corrective action extensions did not appear to be excessive. The RCR and ACE evaluations were graded against a standard. The inspectors noted that some evaluations were modified based on the graded comments. The use of grading and the resulting incorporation of comments improved the quality of the evaluations. The inspectors noted that evaluations involving equipment failures also received maintenance rule screenings. A select number of these screenings reviewed by the inspectors indicated that maintenance rule attributes

were being properly assigned. However, the inspectors noted deficiencies with the licensee's application of failure trend codes for certain condition reports.

Based on the findings in the inspection, inspectors concluded that issue evaluations also needed improvements to eliminate continuing problems such as battery terminal deficiencies and inadequate contractor oversight. In the NRC midcycle assessment of the licensee, dated August 31, 2007, a substantive cross-cutting issue was assigned for PI&R evaluations. A quality assurance audit in mid-2007 also identified weaknesses in CA program implementation. After a root cause evaluation of the audit findings, the licensee initiated site wide training to improve performance. These CAs were too recent for the inspectors to observe their effectiveness.

## **OBSERVATIONS**

### **Trend Code Deficiencies**

During the period of inspection, the licensee used two Corrective Action Program (CAP) procedures. The first CAP procedure (FP-PA-ARP-01, "CAP Action Request Process") was an NMC procedure in effect until the licensee introduced CAP procedure EN-LI-102, "Corrective Action Process," an Entergy procedure. Both procedures required that following completion of the condition evaluation, the licensee was to apply the applicable trend coding in the parent CAP record. The purpose was to populate a data base used to trend causal factors, failure modes and equipment failures. From this data base, the licensee could determine adverse trends occurring in various processes; human performance, organizational, equipment or other processes. This was an important attribute in recognition of developing adverse trends.

Typically, upon receipt of the condition report, the Condition Review Group (CRG) assigned "apparent" trend codes and annotated these trend codes in the trend code section of the condition report. However, condition reports requiring a root cause report or apparent cause report would identify additional trend codes that were not included in the trend section of the condition report. The inspection team identified that approximately half of the root cause reports and apparent cause evaluations reviewed contained trend codes but that these trend codes were not inputted into the licensee's data base since the trend code section of the condition reports were not updated. Although the licensee's trend code data base was being populated by the 'best guess' trends, the more accurate trends identified by root cause and ACE reports were not always included. The inspectors determined that this was a weakness in the licensee's process but there was no evidence that non-inclusion of these more accurate codes had any adverse effect on trending in general. The licensee generated condition reports CR-PLP-2008-1534 and CR-PLP-2008-1675 to address this issue.

### **Main Steam Relief Valve Flange Studs**

The inspectors identified vulnerability related to the licensee's evaluation of the operability recommendation associated with condition report CR-PLP-2008-1131, "Main Steam Relief Valve Flange Missing One Stud Nut and Three Stud Nuts Loose," for main steam relief valve RV-0719. The licensee's Version 2 of the operability determination stated that the relief valve integrity had been determined to be maintained with as few as 2 fasteners tightened to any torque value at approximate equal distances around the flange. The inspectors reviewed the operability recommendation that included a vendor

technical evaluation of the as-found missing/loose nuts condition. During interviews with the licensee's engineering staff and the licensee's vendor, the inspectors determined that intent of the vendor's technical evaluation for 2 bolts was to demonstrate that significant flange bolt margin existed for the as-found bolting condition. The licensee's vendor evaluation did not intend to justify relief valve integrity with as few as 2 fasteners tightened to any torque value at approximate equal distances around the flange. During interviews with the licensee's staff, the inspectors identified the potential for engineering to misapply the operability recommendation limitations for future similar flange bolting concerns. The licensee entered this concern into its corrective action program as CR-PLP-2008-1695. Since the as-found bolting condition for RV-0719 was determined to be operable but non-conforming, and there has not been a misapplication of the operability recommendations for RV-0719, this issue was determined to be minor.

#### Conditions Adverse to Quality Were Classified as Significance Level "D" (Close to Work Order)

The inspectors noted that a number of identified conditions adverse to quality had been identified as significance level "D" (fix without a cause evaluation or extent of condition (EOC) required). The following examples were identified. (1) CR-PLP-2007-03967 which documented a wire that came off (not connected) to limit switch of the anti-pump circuitry of 152-211, "Feed to Pressurizer Heater Transformer EX-16." The wire was reattached; however, there was no documented engineering evaluation or EOC for this condition. (2) CR-PLP-2007-04316 noted that the wiring for MOV 3013, HPCI to reactor coolant loop exhibits frayed wires, missing strands, excessive gaps between the lug and insulation, and wires are twisted and barrel shaped. This CR was closed to a work order. No evaluation of these deficient MOV wiring conditions was available for review. (3) Various CRs, which were classified as level "D," had been initiated in 2007 and 2008 to document corrosion noted on 125Vdc ED-01 and ED-02. Similar conditions were identified in 2006 but the CRs were classified as level "C" in the 2006 CRs. The licensee stated that the CRG determines the classification levels. The inspectors considered the evaluation given these issues to be insufficient given the equipment involved and the nature of the deficiency. However, no significant failures had occurred as a result of the evaluations.

#### Closure and Disposition of Corrective Action Items

(i) The inspectors noted that during the NMC to Entergy software/process conversion in 2007, procedure change requests (PCRs) corrective actions were converted to Document Revision Notices (DRNs) in computer program Merlin, and the PCRs associated with "C" and "D" condition reports had not been assigned corrective action due dates for completion. The previous NMC corrective action process allowed closure of procedure revision corrective actions to PCRs, that had due dates, associated with "C" and "D" level condition reports. The licensee initiated PLP-CR-2008-1532 to document and address this issue. The licensee performed an extent of condition review and did not identify any procedure revision issues.

(ii) The inspectors reviewed licensee's corrective actions described in CR-PLP-2007-4574 which related to potential non-compliance with Radiation Protection requirements and determined that the documentation lacked supporting detail to justify closure of this item without taking corrective actions. This CR was dispositioned by stating in the CR that an investigation and interview determined that the CR description was incorrect and

no additional actions are needed. However, supporting closure information was not provided to close this corrective action and to explain why the description was determined to be incorrect. The licensee initiated CR-PLP-2008-01688 to review and address this issue.

No findings of significance were identified.

(4) Assessment – Effectiveness of Corrective Actions

The inspectors concluded that corrective action effectiveness would necessarily suffer as a consequence of weaknesses in problem identification and evaluation described above. However, for the issues reviewed and in the inspection finding record, corrective actions were completed and found effective. The licensee had effectiveness reviews of issues selected by management as part of the CA program. In some areas however, issues have persisted such as fuel failures, leaking control rod drive seals and personnel contamination events. These issues were being addressed by the licensee, but the actions taken recently could not be assessed by inspectors.

No findings of significance were identified.

b. Assessment of the Use of Operating Experience

(1) Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed implementing operating experience program procedures, completed evaluations of OE issues and events, and selected monthly assessments of the OE composite performance indicators. The inspectors' review was to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were identified and effectively implemented in a timely manner.

(2) Assessment

The inspectors noted that screening of OE was performed frequently via teleconferencing between the site and company headquarters. The inspectors believed that OE was adequately reviewed at the site. The inspectors noted that root cause reports and apparent cause evaluations included discussions of OE.

No findings of significance were identified.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

Inspectors reviewed samples of the governing procedures, schedules, plans, reports, and resulting CRs for licensee self assessments and quality assurance (QA) audits. A sample of corrective actions generated for issues was also reviewed.

(2) Assessment

The licensee used numerous corporate and station performance measures to monitor station activities. Departmental assessments were performed and rolled up into station wide assessments. During the transition to Entergy and refueling outage quarters in 2007, some quarterly department assessments were suspended, however the program was fully restored at the time of the inspection. In the last year, QA audits were effective in identifying a number of findings pertaining to radiation protection, the corrective action program, and maintenance activities. The self assessment and audit functions appeared to be well established by procedures and functioning effectively. Of positive note were procedures used to grade the quality of assessments and requirements for the use of assessment personnel from outside the station.

A self assessment of the CA program had been performed. This assessment was thorough and well organized. The issues that were identified had assigned CAs. The assessment findings and conclusions closely matched those of the inspection team.

No findings of significance were identified.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The inspectors assessed the licensee's safety conscious work environment through the reviews of the facility's employee concern program (ECP) implementing procedures, discussions with the ECP manager, interviews with personnel from various departments, and reviews of issue reports. The inspectors interviewed approximately nineteen individuals from various departments about their willingness to raise nuclear safety issues and reviewed selected corrective action program records to assess safety-conscious work environment.

(2) Assessment

Entergy took over plant operations in mid-2007 and included a rollout of safety conscious work environment expectations to the plant staff. The reception by the staff appeared positive and, based on interviews, none of the individuals expressed hesitancy in raising nuclear safety issues through the corrective action program. Issues handled through the ECP were appropriately resolved and did not indicate unwillingness to raise concerns. The monitoring of employee attitudes was being performed by the ECP manager using in-house surveys. A site wide safety culture survey had been postponed by a corporate decision, but an Entergy fleet survey was planned for next year. The licensee had additional programs to monitor safety culture using procedures EN-QV-132, "Site Executive Protocol Group," and EN-HR-138,

“Executive Review Board Process.” These procedures attempt to identify adverse safety culture trends or activities and intervene before problems occur.

No findings of significance were identified.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. Schwarz and other members of the Palisades staff at an exit meeting on April 18, 2008. No proprietary information was identified in the possession of the team.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

C. Schwarz, Site Vice President  
C. Arnone, Nuclear Safety Assurance Director  
J. Bergeron, I&C Maintenance Supervisor  
L. Blocker, Operations Manager  
C. Brooks, Entergy/Echelon Corrective Action and Assessment  
J. Broschak, Engineering Director  
E. Chatfield, Corrective Action/ Self Assessment Supervisor  
B. Dotson, Licensing Specialist  
J. Ford, Corrective Action & Assessment Manager  
M. Frato, Security Manager  
A. Jones, Quality Assurance Assessor  
L. Lahti, Licensing Manager  
J. Keller, Transition Coordinator  
T. Kirwin, General Manager Plant Operations  
J. Kryska, Safety Assurance Superintendent  
D. Malone, Emergency Preparedness Manager  
K. Marbaugh, Quality Assurance Manager  
J. Miksa, Planning, Scheduling & Outage Manager  
J. Plumb, Site OE Coordinator  
P. Russell, Maintenance Manager  
C. Scott, Employee Concerns Manager  
R. Scudder, Operations Specialist  
C. Sherman, Radiological Protection Manager  
R. Smith, Maintenance I&C Supervisor  
R. Van Wagner, Engineering Programs Manager

#### Nuclear Regulatory Commission

C. Pedersen, Director, Division of Reactor Projects, Region III  
J. Ellegood, Senior Resident Inspector, Palisades  
J. Giessner, Resident Inspector, Palisades

### **LIST OF ITEMS OPENED, CLOSED, AND 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 of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document 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.

### PLANT PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
EN-EC-100	Guidelines for Implementation of the Employee Concerns Program	2
EN-HR-138	Executive Review Board Process	0
EN-LI-102	Corrective Action Process	12
EN-LI-104	Self-Assessment and Benchmark Process	3
EN-LI-118	Root Cause Analysis Process	7
EN-LI-119	Apparent Cause Evaluation (ACE) Process	7
EN-LI-121	Energy Trending Process	6
EN-LI-122	Common Cause Analysis (CCA) Process	0
EN-OE-100	Operating Experience Program	4
EN-QV-109	Audit Process	11
EN-QV-132	Site Executive Protocol Group	0
FP-PA-ARP-01	CAP Action Request Process	12
FG-PA-CTC-01	CAP Trend Code Manual	6
FHS-M-23	Movement of Heavy Loads in the Spent Fuel Area	27
FHS-M-24	Movement of Heavy Loads in the Containment Building Area	25
SOP-1C	Primary Coolant System – Heatup	7
EN-DC-147	Engineering Reports	3
EN-DC-126	Engineering Calculation Process	1

### CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CR-PLP-2006-0246	Degraded Charging Pump Flow Rate	January 19, 2006
CR-PLP-2006-0485	MSR E-9D Relief Valve Failed to Reseat During Testing	March 16, 2006
CR-PLP-2006-1176	Procedure Qualification Record Did Not Meet ASME Requirements	March 8, 2006
CR-PLP-2006-1423	Negative Trend in Ops-Related Errors	May 2, 2006
CR-PLP-2006-2032	Fuel Failure Identified During Visual Inspection of Fuel Assembly T30	June 21, 2006

**CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CR-PLP-2006-2153	Incore Liner Floated to Surface of Reactor Cavity	May 20, 2006
CR-PLP-2006-2190	Service Water Leak Results in Retorque following Final Torque and QC Verification	April 19, 2006
CR-PLP-2006-2742	Uncoupled Rod 33 During Start Up	June 10, 2006
CR-PLP-2006-2956	Preconditioning Needs to Be Evaluated on Broader Scale	May 25, 2006
CR-PLP-2006-5213	Auxiliary Feedwater Pump Not Aligned for Auto Operations	November 21, 2006
CR-PLP-2007- 5199	Unauthorized Heavy Load Movement in Containment	October 13, 2007
CR-PLP-2007-0249	Improper Implementation of TS 3.4.1.D	January 18, 2007
CR-PLP-2007-0473	Common Cause Evaluation, Unplanned LCO Entries "Methods Not Clear" Trending Upwards	March 30, 2007
CR-PLP-2007-04899	Potential Trend in 50.59 screenings	October 05, 2007
CR-PLP-2007-0571	Liquid Radiation Monitor Function Switch Mispositioned	April 5, 2007
CR-PLP-2007-0591	HPSI Equipment Issues, AR 1039162	February 20, 2007
CR-PLP-2007-0591	Extent/condition for HPSI RCE Is Narrow/Lacked Documentation	February 8, 2008
CR-PLP-2007-0623	NRC Identified Deficiencies in Two RCEs	February 9, 2007
CR-PLP-2007-0653	Adverse Trend: Exceeding Department Monthly Dose Goals	March 15, 2007
CR-PLP-2007-0830	Inaccurate EP Notification During EP Drill	August 3, 2007
CR-PLP-2007-1401	EP Drill Scenario Question SAE Declaration	March 27, 2007
CR-PLP-2007-1412	Adverse Trends for Verification/ Validation Errors	February 26, 2008
CR-PLP-2007-1626	Plant Trip during Maintenance Activity	December 18, 2007
CR-PLP-2007-1883	Increase in I-131 in Primary Coolant System	June 14, 2007
CR-PLP-2007-1884	Water Hammer in FW Heater E-5B to Heater Drain Tank T-5	May 8, 2007
CR-PLP-2007-1933	Condition of FW726 Not Fully Assessed for PMs during Observation of P-8C Auxiliary Feedwater Pump Testing	May 10, 2007
CR-PLP-2007-1936	Rebuild to P-8C Deleted without Fully Assessing Condition	May 10, 2007
CR-PLP-2007-2125	Inadequate Tagging of C-2B Heat Exchanger	May 18, 2007
CR-PLP-2007-2163	NMC Fleet PI to Entergy Fleet PI Delta in Operations Burden	July 31, 2007
CR-PLP-2007-2833	NRC Crosscutting Evaluation / Extent	July 31, 2007
CR-PLP-2007-3073	C2A Instrument Air Compressor Tripped on Motor Overload	January 29, 2008

**CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CR-PLP-2007-3165	Fuel Failure Identified During Visual Inspection	December 18, 2007
CR-PLP-2007-3365	Quality Assurance AFI in CAP	September 20, 2007
CR-PLP-2007-3751	Substantive Cross-Cutting Issue in Area of Problem Identification and Resolution	September 10, 2007
CR-PLP-2007-3859	Fraudulent Bolt Installed in Flood Barrier Expansion Joint	September 12, 2007
CR-PLP-2007-4549	Partial Restoration of CV-1359 Reveals Valve Out of Position	December 6, 2007
CR-PLP-2007-4845	"C" PCP Showed Signs of all 3 Stages Unstaging	February 28, 2007
CR-PLP-2007-4850	Heavy Load Move Not Permitted Over SFP	October 4, 2007
CR-PLP-2007-5258	Significant Issues Involving Control of Heavy Crane Loads	October 15, 2007
CR-PLP-2007-5347	C2B IAC Tripping on Low Oil Pressure	March 11, 2008
CR-PLP-2007-5372	PCS Temperature Transient due to Partially Open FWRV CV-0703	November 13, 2007
CR-PLP-2007-5375	Common Cause Analysis for Adverse Trend: Equipment Control/Tagging	April 3, 2008
CR-PLP-2007-5719	Lateral Restraint of MSR/V Discharge Stack Was Not Re-Installed	November 9, 2007
CR-PLP-2007-5898	NRC Identified Potential Vulnerability	February 11, 2008
CR-PLP-2007-6097	No Standard Filing Format for Security Training Records	December 3, 2007
CR-PLP-2007-6175	Deficiencies in Problem Identification, Resolution and Process Implementation	December 6, 2007
CR-PLP-2007-6442	Lack of Management Oversight, Direction, and Line Ownership of Security Training Program	December 20, 2007
CR-PLP-2008-0114	Human Performance, Work Practices, Human Error Prevention Cross-Cutting Area	January 9, 2008
CR-PLP-2008-0409	Inadequate Improvement of Line Ownership and Management Oversight of Security Training Program	January 29, 2008
CR-PLP-2008-1131	Main Steam Relief Valve Flange Missing One Stud Nut and Three Stud Nuts Loose	March 10, 2008
CR-PLP-2008-1611	Minor Error in Engineering Analysis	April 9, 2008
CR-PLP-2008-0544	Security Training Program	February 4, 2008
CR-PLP-2008-1131	Operability Recommendation: Main Steam Relief Valve Flange Missing One Stud Nut and Three Stud Nuts Loose	March 10, 2008
CR-PLP-2006-5443	Potential for Safety Injection and Refueling Water Storage Tank Level Switch Setpoints to Be outside TS Limit	November 15, 2006

**CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CR-PLP-2006-5864	Failure to Correctly Apply Pressure Locking Thrust in MOV Performance Test Procedures	December 12, 2006
CR-PLP-2007-2833	Inadequate Extent of Condition for High Pressure Safety Injection Valve Failure	July 10, 2007
CR-PLP-2007-5258	Failure to Comply with Operating Requirements Manual Restrictions on Heavy Load Movement	October 15, 2007

**OPERATING EXPERIENCE**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CR-PLP-2007-5913	Review Intake Cooling Water Blockage	November 30, 2007
CR-PLP-2008-0004	Review NRC RIS 2007-21, Adherence to Licensed Power Limits	April 3, 2008
PLPLO-2007-0203	Review NRC IN 2007-09, Equipment Operability under Degraded Voltage Conditions	January 4, 2008
PLPLO-2007-0110	Review NRC IN 2007-15, Effects of Ethernet-based, Non-safety Related Controls on the Safe and Continued Operation of Nuclear Power Stations	May 21, 2007
PLPLO-2007-0115	OPEX; Evaluate EDG Minimum Fuel Oil Storage Requirements	May 21, 2007
PLPLO-2007-0174	OPEX Issue 1; IN 2007-34, Circuit Breaker Maintenance	September 10, 2007
PLPLO-2008-0046	OPEX Issue 3; NRC Part 21, Dedication Requirement for Commercial Grade Items	April 9, 2008
NA	OPEX Issue 21; GE Part 21, BWR Suction Strainer Head Loss	February 20, 2008
NA	OPEX Issue 22; NRC Part 21, Damaged Fuel Assembly Spacers	April 15, 2008

**AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CR-PLP-2007-1884	Apparent Cause Evaluation Grading	May 8, 2007
CR-PLP-2008-0114	Apparent Cause Evaluation Grading	January 9, 2008
CR-PLP-2007-5258	Apparent Cause Evaluation Grading	October 15, 2007
PL-FSA-07-014	"Palisades Equipment Trending" Focused Self Assessment Report	
NA	Palisades Nuclear Oversight Fleet Quarterly Report	Fourth Quarter 2007

## **AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
NA	Program Health Status: Inservice Testing	December 11, 2007
NA	Palisades Self Assessment Program Performance Indicator Summary	January 2007
NA	Palisades Self Assessment Program Performance Indicator Summary	March 2007
NA	Performance Summary	January 2008
NA	Performance Summary	February 2008
NA	Performance Summary	March 2008
NA	Palisades CAP Performance Index-	March 2008
NA	Quarterly Trend Reports: Operations	4 <sup>th</sup> Quarter 2007
NA	Quarterly Trend Reports: Training	4 <sup>th</sup> Quarter 2007
NA	Quarterly Trend Reports: Chemistry	4 <sup>th</sup> Quarter 2007
NA	Quarterly Trend Reports: EP	4 <sup>th</sup> Quarter 2007
NA	Department Roll-Up Meeting Results: Operations	1 <sup>st</sup> Quarter 2007
NA	Department Roll-Up Meeting Results: Operations	4 <sup>th</sup> Quarter 2006
NA	Department Roll-Up Meeting Results: Emergency Preparedness	4 <sup>th</sup> Quarter 2006
NA	Department Roll-Up Meeting Results: Operations	3 <sup>rd</sup> Quarter 2006
NA	2007 Operating Experience Program Self- Assessment	December 19, 2006
NA	Cornerstone Rollup: Inservice Testing	1 <sup>st</sup> Quarter 2008
NA	Quarterly Trend Reports: Engineering	3 <sup>rd</sup> & 4 <sup>th</sup> Quarter 2007
NA	Quarterly Trend Reports: Security	4 <sup>th</sup> Quarter 2007
NA	Department / Site Roll-Up Meeting Results: Site	1 <sup>st</sup> Quarter 2007
NA	Department Roll-Up Meeting Results: Engineering	4 <sup>th</sup> Quarter 2006
NA	Department Roll-Up Meeting Results: Security	4 <sup>th</sup> Quarter 2006
NA	Department Roll-Up Meeting Results: Security	1 <sup>st</sup> Quarter 2007
NA	Entergy Corrective Action Performance Index	April 2008
PLPLO-2006-0311	Pre-PI&R Assessment	December 10-14, 2007
QA-3-2007-PLP-01	Quality Assurance Audit of the Corrective Action Program	August 28, 2007

## **DRAWINGS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
E-129	Schematic Diagram - Stored Energy Circuit Breaker 152-211	Rev. 0
E-253 Sh. 1	Schematic Diagram – Pressurizer Heater Transformer Feeder Breakers	Rev. 20
E-253 Sh. 1A	Schematic Diagram – Pressurizer Heater Transformer Feeder Breakers	Rev. 5

## **CONDITION REPORTS GENERATED DURING INSPECTION**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CR-PLP-2008-1349 (CA6)	Revise site protective relay calibration instructions	April 9, 2008
CR-PLP-2008-1520	NRC identified two errors in Admin Procedure 1.30, Emergency Preparedness Drill Preparation, Revision 6	April 2, 2008
CR-PLP-2008-1532	NMC Corrective action process allowed closure of procedure revision corrective actions to Procedure Change Requests (PCR's), that had due dates, associated with "C" and "D" condition reports	April 3, 2008
CR-PLP-2008-1534	Trend codes entered into Root Cause Evaluation CR-PLP-2007-01401 (J5 and RR2) differed from those in the trend tables under the CR (A1 and RR5)	April 3, 2008
CR-PLP-2008-1669	Significant variation in trend analysis and reporting performed by departments for 2007 second and third quarter months	April 15, 2008
CR-PLP-2008-1675	NRC Inspector identified five Condition Reports where the trend code information in PCRS does not match the evaluation's failure modes/causal factors	April 15, 2008
CR-PLP-2008-1680	Electrical Testing Procedures (SPS-E-23 (Section 5.11.2.b.3), SPS-E-24 (Section 5.10.3), SPS-E-25 (Section 5.12.2.b.3)) references initiation of a condition report if discrepancies are not resolved. Initiation of a condition report is required for any testing discrepancy.	April 16, 2008
CR-PLP-2008-1687	While assisting NRC representative inspect ED-02(Station Battery) found corrosion on cell #53, positive post	April 16, 2008

## **CONDITION REPORTS GENERATED DURING INSPECTION**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CR-PLP-2008-1688	Disposition and closure comments for significance level C condition report, CR-PLP-2007-4574, do not provide enough detail to justify closure	April 16, 2008
CR-PLP-2008-1695	Operability statement provided for condition report CR-PLP-2008-1131 has potential for engineering to misapply the operability conclusions when faced with future, similar, flanged bolting issues	April 17, 2008
CR-PLP-2008-1696	Over the past two years there have been 5 occurrences where we have identified corrosion on battery cells during the performance of QE-35 (ED-01 and ED-02 Battery Checks - Quarterly) and not initiated a condition report	April 17, 2008
CR-PLP-2008-1724	CR-PLP-2006-05661 corrective action response did not clearly identify the reviews taken to ensure EPRIINP-7410 standards were addressed in the SPS-E-23 Testing of Molded Case Breakers	April 18, 2008

## LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluations
ASME	American Society of Mechanical Engineers
CA	Corrective Action
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRG	Condition Review Group
CR	Condition Report
DC	Direct Current
DG	Diesel Generator
DRP	Division of Reactor Projects
ECP	Employee Concern Program
EOC	Extent of Condition
EDG	Emergency Diesel Generator
FW	Feedwater
GE	General Electric
I&C	Instrumentation and Controls
LCO	Limiting Condition for Operation
LOOP	Loss of Off-site Power
MOV	Motor-Operated Valve
NMC	Nuclear Management Company
NRC	U.S. Nuclear Regulatory Commission
PCR	Procedure Change Request
OE	Operating Experience
PI	Performance Indicator
PI&R	Problem Identification and Resolution
QA	Quality Assurance
RCR	Root Cause Review
RFP	Reactor Feed Pump
SW	Service Water
TS	Technical Specification