



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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March 16, 2012

Mr. Anthony Vitale
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 REPORT 05000255/2012007**

Dear Mr. Vitale:

On February 17, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution biennial inspection at your Palisades Nuclear Plant. The enclosed inspection report documents the inspection results which were discussed on February 17, 2012, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to problem identification and resolution and compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

Based on the inspection sample, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at Palisades was adequate. Licensee-identified problems were entered into the corrective action program at a low threshold. Problems were generally prioritized and evaluated commensurate with the safety significance of the problems; however, there were examples where issues were not pursued with the appropriate rigor when they were initially identified which resulted in violations. Corrective actions were generally implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from industry operating experience were generally reviewed and applied when appropriate. Audits and self-assessments were generally used to identify problems and appropriate actions.

Based on the results of this inspection, no findings were identified. However, If you disagree with a characterization of an issue in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III; and the NRC Resident Inspector at the Palisades Nuclear Plant.

A. Vitale

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

Sincerely,

/RA/

John B. Giessner, Branch Chief
Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000255/2012007
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000255/2012007

Licensee: Entergy Nuclear Operations, Inc.

Facility: Palisades Nuclear Plant

Location: Covert, MI

Dates: January 30 through February 17, 2012

Inspectors: R. Lerch, Project Engineer, DRP
G. O'Dwyer, Reactor Inspector, DRS
T. Taylor, Resident Inspector, Palisades
S. Sheldon, Senior Reactor Inspector, DRS

Approved by: John B. Giessner, Chief
Branch 4
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

Inspection Report 05000255/2012007; 1/30/2012 – 2/17/2012; Palisades Nuclear Plant, Routine Biennial Problem Identification and Resolution Inspection.

This inspection was performed by three NRC regional inspectors and one resident inspector. 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.

Problem Identification and Resolution

On the basis of the sample selected for review, the team concluded that implementation of the Corrective Action Program (CAP) at Palisades was adequate, but only marginally effective. The inspectors did note an overall decline in performance since the last inspection. The licensee had a low threshold for identifying problems and entering them in the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria and were properly evaluated commensurate with their safety significance. In general, causes for issues were adequately determined and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. However, frequent NRC input or self-revealing events identified issues that the plant staff failed to adequately address. In one case, a significant condition adverse to quality was not adequately addressed and this resulted in recurrence of a failure of a safety-related service water pump. Another self-revealed finding related to the failure to run on an auxiliary feedwater pump, of low to moderate safety significance, was not adequately addressed initially. NRC comments, and later review by the licensee, led to the development of a root cause analysis which revealed other significant shortfalls in the maintenance of the turbine-driven auxiliary feedwater pump. This was a finding of low to moderate safety significance. The team noted that the licensee effectively reviewed operating experience for applicability to station activities. Audits and self assessments were determined to be effectively performed at an appropriate level to identify deficiencies. Based on the surveys conducted by the licensee, interviews conducted during the inspection, and review of the employee concerns program, employee freedom to raise nuclear safety concerns without fear of reprisal was evident.

A. NRC-Identified and Self-Revealed Findings

No items of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

The activities documented in Sections .1 through .4 constituted one biennial sample of Problem Identification and Resolution (PI&R) as defined in Inspection Procedure (IP) 71152.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's Corrective Action Program (CAP) implementing procedures and attended CAP meetings to assess the implementation of the CAP by site personnel.

The inspectors reviewed risk and safety significant issues in the licensee's CAP after January 1, 2010, which was since the last Nuclear Regulatory Commission (NRC) PI&R inspection in January 2010. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self assessments, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the inspectors reviewed condition reports (CR) generated as a result of facility personnel's performance in 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, and common cause investigations.

The inspectors extended the review of the turbine-driven auxiliary feedwater pump back 5 years with an emphasis on issues associated with the pump room and environmental conditions. The inspectors also performed a partial system walkdowns.

During the reviews, the inspectors determined whether the licensee staff's actions were in compliance with the facility's CAP 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 CAP 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 investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions (preventing recurrence if required by Appendix B) for selected issue reports, completed investigations, and NRC findings, including Non-Cited Violations (NCVs).

b. Assessment

(1) Effectiveness of Problem Identification

Based on the information reviewed including generation rates and interviews, the inspectors concluded that, in general, problem identification was adequate and at an

appropriate threshold. During the assessment period, the station initiated seven to eight thousand CRs per year. The CR generation numbers appeared representative of a good problem identification ethic. The sample of issues reviewed by inspectors that were entered into the CAP indicated there was a low threshold and a steady generation of CRs. This was consistent with the last biennial PI&R inspection. Other safety conscious work environment (SCWE) indicators such as surveys and interviews indicated willingness to identify issues and capture them in the CAP.

Observations

A negative aspect to problem identification observed by inspectors was that too often there were issues that the plant staff had identified where the significance or extent of the issue went unrecognized until the NRC, the Quality Assurance organization (QA), or a self-revealing event escalated its importance. This was an observation in the last biennial PI&R inspection as well; however, the number and significance of issues identified with this weakness had increased since the last inspection. An example of an issue with inadequate recognition/identification included lubrication of the turbine driven auxiliary feedwater (AFW) pump trip linkage which caused an unexpected AFW pump trip (a White violation, 255/2011013-01) for which NRC comments prompted more in-depth analysis which later revealed additional issues regarding maintenance of the pump. Other examples were water leakage into the double wall of the emergency diesel generator fuel oil storage tank that was not recognized as a potential age management degradation issue (a Green NCV 255/2011008-003); a visual examination of the reactor vessel head that lacked evaluation of corrosion identified by an NRC inspector (a Green NCV 255/2011-013-01); and the enclosure for the F and G bus breakers that was not maintained weatherproof and moisture intrusion caused a ground fault (An emergency classification of an Unusual Event and a Green finding 255/2011002-03). Prior to the fault occurring, a preventive maintenance task for caulking the enclosure (established in response to a similar, previous issue) was cancelled in 2002.

Findings

No findings were identified.

(2) Effectiveness of Prioritization and Evaluation of Issues

The team found there was adequate consideration of operability and reportability requirements. However, in some instances, NRC involvement was required to ensure appropriate regulatory compliance. One example was an incorrect Technical Specifications action statement entry for loss of a reactor protection system function (Green NCV 255/2010004-02). Another example was the restoration of the direct current (DC) busses to operable status following a transient on the DC system that was the subject of a yellow finding (255/2011014-02). The NRC identified additional issues with that operability evaluation that should have been considered and were later added.

For the sample reviewed by inspectors, CRs were generally appropriately prioritized during initiation and screening by the Condition Review Group in accordance with the procedural guidelines. The team reviewed prioritization of issues as reflected in assigned due dates and concluded there was appropriate consideration of risk in prioritizing and evaluating issues and assignments appeared consistent with procedural requirements. Although the majority of CRs were adequately evaluated and resolved,

examples of CRs that had evaluations that lacked rigor were also present. A negative aspect of licensee performance with issue evaluations was that, similar to the last biennial PI&R, too many issue evaluations lacked sufficient rigor to define the issues thoroughly and resolve them. These resulted in repeat findings and in one case a recurrence of a significant condition adverse to quality. The NRC inspection findings during the assessment period indicated NRC involvement and self-revealing events prompted more thorough licensee evaluations for issues. For example, deficiencies with control of the Offsite Dose Calculation Manual were identified with regard to the scope of sampling for radiological liquid effluents offsite (a Green NCV, 255/2010002-03). Over a year after a finding was issued by the NRC for this issue, the licensee still had not instituted the required sampling and another finding was issued (a Green NCV 255/2011003-08 with subsequent verification that the condition was then actually corrected). Other examples of inadequate rigor in evaluating issues included questions on the employment of a backup radiation monitor and the analysis of potential spills of radioactive liquids to the environment. Questions raised by the NRC regarding the employment of a single backup radiation monitor for two process streams were not pursued in-depth until a NRC walkdown revealed design issues with the backup monitor. This issue resulted in a Green Finding (255/2011003-02). For potential spills, the NRC raised questions regarding a particular tank and whether or not a postulated rupture was bounded by existing accident analyses. Months later, the NRC discovered some administrative changes had been made to licensing basis documents, but the core question of whether the tank satisfied regulatory requirements had not been answered. The NRC issued a Green finding and corrective action was taken (255/2011002-04).

Weaknesses were also identified with the evaluation issues that became safety-significant findings. The failure of the 7C service water pump coupling was a self-revealing repeat event after a previous evaluation failed to look at broader failure mechanisms (a White violation, 255/2011016-01). Additionally, the initial apparent cause evaluation and failure analysis associated with the unexpected trip of the turbine-driven auxiliary feedwater pump lacked rigor (White violation, 255/2011013-01). Comments from the NRC and further review by the licensee led to a root cause evaluation and more in-depth engineering analysis. The evaluation revealed additional issues with regards to post-maintenance testing and incorporation of operating experience that had not been explored in the initial apparent cause. Finally, during the inspection, the inspectors questioned the evaluation of CR-PLP-2011-4872 for a differential temperature between the pressurizer vapor space and the cold leg which exceeded 200 degrees F. The evaluation relied on a 350 degree differential temperature limit for abnormal conditions, but upon questioning, the justification for the 350 degrees could not be produced. The plant design basis allows for numerous temperature cycles over 200 degrees, so there was no immediate concern that the applicable thermal cycle limit was exceeded. The tracking methodology for thermal cycles will be reviewed in a future inspection.

Overall in this area, the inspectors concluded the licensee was marginally effective.

Observations

The licensee had increased the use of the “learning organization (LO)” option of the computer tracking system to provide task reminders and to track actions for improvements or fixes for conditions that are not conditions adverse to quality (CAQ). The level of review and accountability is based on user discretion. For issues

determined to be important, such as the actions for the Performance Recovery Program, due dates were assigned and extension approvals were required. Inspectors did not identify any CAQs in the system, however the QA department had issued a repetitive finding for CR corrective actions closed to the LO system. Inspectors noted that the system, also, had a potential to develop a backlog.

Findings

No findings were identified.

(3) Effectiveness of Corrective Actions

The overall effectiveness of corrective actions was adequate. The team found, in general, that the licensee could develop and implement corrective actions and use risk insights in prioritizing corrective actions, but was impacted by the weaknesses observed with lack of rigor in identifying problems and evaluating issues. CRs routinely assigned effective corrective actions commensurate with their risk significance. As a result of an appropriately low identification threshold, most CRs have low significance. However, repeat issues such as the service water (SW) pump coupling failure, and issues re-identified by the QA department indicated that the licensee had not been effective at resolving all issues, including some that were significant. In the case of the SW pump, a significant condition adverse to quality was not adequately addressed and this resulted in recurrence of a failure of a safety related service water pump; a finding of low to moderate safety significance (White violation, 255/2011016-01).

Observations

During review of a thermal cyclic fatigue monitoring issue, the inspectors were informed that the licensee had not approved the "FatiguePro" software and the associated "Create CDT" software for use at Palisades even though the computer programs have been in use since 2007. The FatiguePro program also had a Software Change Request (SCR-2010-131) that had not yet been incorporated. The licensee was tracking the software change by LO-WTPLP-2011-120 CA-1; however the LO-WT tracking system was not used for conditions adverse to quality and therefore, this action had not yet been accomplished. A CR, PLP-2009-0518, had also previously been written to document a needed software change, but had been closed before the change was completed. The licensee initiated CR-PLP-2012-01045 in response to the inspectors' concerns to address these untimely actions. The plant appeared to be meeting its design basis at the time of this inspection, but inspectors had questions about the adequacy of the program for assuring tracking of thermal cycles. The program will be reviewed in a future inspection.

Findings

No findings were identified.

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed implementing OE

program procedures and completed evaluations of OE issues and events, interviewed individuals with respect to the use of OE, attended an OE screening, and reviewed a self-assessment of the OE program. The inspectors' review was to determine whether the licensee was effectively integrating OE into the performance of daily activities, whether evaluations of issues were proper, 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 the OE, were identified and effectively implemented in a timely manner.

b. Assessment

The inspectors noted that screening of OE was performed frequently via teleconferencing between the site, fleet, and company headquarters. The inspectors believed, in general, that OE was adequately reviewed at the site. The inspectors noted that root cause reports and apparent cause evaluations included discussions of OE. Notwithstanding the appearance of a healthy OE program, there were several previous findings that noted deficiencies incorporating OE. In these cases, use of operating experience may have prevented follow-on events. This indicated that some effort is necessary to institutionalize OE. In the case of the White finding for the SW coupling failure due to corrosion cracking, a significant contributor to the failure was the site's poor use of OE in evaluating the material and the environment it is used in. The operating experience for 416/410 stainless steel started in the 1980's, and OE was available up through 2010 from a similar failure at another plant (discussed in IR 2011016). The material of the coupling was changed to 416 stainless steel from carbon steel in 2007. The site did not adequately assess the OE which specifically stated 416 SS could be susceptible to cracking, and did not initiate any review as would have been appropriate (and discussed in the OE) to look at the fracture toughness of the metal to ensure the material was suitable for use. In addition, following the first coupling failure in 2009, the site did not re-evaluate the OE that existed, and had become available, showing additional issues with cooling water systems connected to lake or river water supplies. Finally, the licensee failed to recognize the need to evaluate age-related degradation in emergency diesel generator governors, although recent governor issues existed and should have prompted a more thorough review of operating experience. The NRC identified components that would go beyond useful life based on this OE. This resulted in a Green finding and required the site to take prompt action to address and correct the issue (255/2011002-01).

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CA program, prioritize and evaluate issues, and implement effective corrective actions through efforts from departmental self-assessments and from audits performed by the QA organization. Inspectors reviewed a sample of self-assessments by various

departments, QA audits, schedules of past and future assessments, and held discussions with program managers.

b. Assessment

Based on the sample of audits and assessments reviewed, the inspectors concluded that self-assessments and audits were typically thorough and effective at identifying issues and enhancement opportunities at an appropriate threshold level. However, since QA continued to have repeat issues, the inspectors concluded there was limited effectiveness in evaluating and correcting the QA-identified issues.

A substantial self-assessment program was scheduled and tracked across station organizations and issues were captured and resolved in the CA program. Feedback from the Entergy fleet indicated to Palisades that they performed more self-assessments than other plants. The plant staff was therefore reducing the overall plan for self-assessments, using an organized approach to identify assessments to be eliminated. The inspectors reviewed the self-assessment performed on the CAP and found no issues with the overall results and conclusions drawn, although inspectors noted that the assessment failed to recognize that QA audit findings were being repeatedly identified, and failed to appropriately attribute several issues to identification by the NRC. In the case of Quality Assurance audits, there were numerous instances where the issues raised were repeat issues from previous audits. Some examples included control of non-conforming material, measuring and test equipment traceability issues, and observations that engineering-related corrective actions were being closed to processes outside of the corrective action program. This indicated a lack of effectiveness by the licensee and QA at resolving those issues. The QA organization was aware of this record and indicated they planned to escalate and pursue the resolution of issues more strongly.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors assessed the licensee's SCWE through the review of the employee concerns program (ECP) implementing procedures, discussions with the manager of the employee concerns program, interviews with personnel from various departments, and reviews of issue reports. The review was done to ensure there was a free flow of information and determine if there was a reluctance to raise nuclear safety concerns. An independent review of safety culture by an Entergy-contracted group was underway at the time of the inspection in response to recent events at the site.

b. Assessment

The ECP was accessible to employees and dealing with employee issues. The site was performing periodic surveys in different organizations using anonymous computer questions to gauge staff attitudes. Managers took actions to address results that indicated a potential for improvement. Based on inspector observations of the CA process and discussions with approximately 30 plant staff members, the indications

were that plant staff felt free to raise issues either with their supervisor, through the CAP, or through the Employee Concerns Program without fear of retaliation.

c. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On February 17, 2012, the inspectors presented the inspection results to Mr. T. Vitale, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

On March 24, 2012, the inspectors spoke by phone with T. Davis of Palisades to convey that an unresolved item would not be carried regarding thermal cyclic fatigue monitoring. This issue has been assigned to the license renewal inspection for review.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

Tony Vitale	Entergy/Site Vice President
David Hamilton	Entergy/General Mgr Plant Operations
Charlie Arnone	Entergy/Nuclear Safety Assurance Dir
Alan Blind	Entergy/Engineering Director
Chuck Sherman	Entergy/RP Manager
John Dills	Entergy/Operations Manager
Bart Nixon	Entergy/Training Manager
Chris Plachta	Entergy/QA Manager
Jody Haumersen	Entergy/System Engg Manager
Jim Miksa	Entergy/Programs Engg Manager
Mike Mlynarek	Entergy/Chemistry Manager
Tom Reddy	Entergy/MP&C Manager
Ernie Chatfield	Entergy/ECP Manager
Bret Baker	Entergy/Assistant Maintenance Mgr
Bob Bees	Entergy/IT Manager
Dave Berkenpas	Entergy/Security Manager
Bob VanWagner	Entergy/DFS Project Manager
Neil Lane	Entergy/Manager of Projects
Dan Malone	Entergy/EP Manager
Mike Sicard	Entergy/Recovery Plan Manager
Otto Gustafson	Entergy/Licensing Manager
Tim O'Leary	Entergy/Acting CA&A Manager
Dale Lucy	Entergy/Maintenance Superintendent
Roger Smith	Entergy/Maintenance Superintendent
Doug Watkins	Entergy/RP Superintendent
Ryan Prescott	Entergy/Sr. CA&A Specialist

James Dalrymple

Entergy/CA&A Specialist III

Barb Dotson

Entergy/Licensing Specialist IV

Kami Miller

Entergy/CA&A Specialist II

Nuclear Regulatory Commission

G. Shear, Deputy Director, DRP Region III

J. Giessner, Chief, Branch 4, DRP Region III

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 or 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	Rev 5
EN-LI-102	Corrective Action Process	Rev 17
EN-LI-102-02	CR Closure Quality	Rev 3
EN-LI-104	Self-Assessments and Benchmark Process	Rev 5
EN-LI-118	Root Cause Analysis Process	Rev 16
EN-LI-119	Apparent Cause Evaluation Process	Rev 14
EN-OE-100	Operating Experience Process	Rev 13
EN-QV-136	Nuclear Safety Culture Monitoring	Rev 0
EN-WM-100	Work Request Generation, Screening and Classification	7
PCS-M-8	Repairing Pressurizer Spray Valves CV-1057 and CV-1059	18

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number CR-PLP-</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2003-01938	Dead pigeon Found in Discharge of Relief Valve Pipe	03/19/03
2007-02388	Oil Leak on AFW Pump P-8B	06/06/07
2007-02860	HELB Effect on AFW Pump Room	07/12/07
2007-05339	P-8B Oil Slinger not Turning	10/19/07
2007-05820	P-8B Packing Leakage Low	11/14/07
2008-00553	Bird debris in P-8B Steam Traps	
2008-00737	Turbine Bearing Oilers Drained	02/13/08
2008-00739	P-8B Bearing in Alert Range	02/14/08
2008-02118	K-8 Turbine Drive Oil Sample	05/09/08
2008-02203	AFW Pump Speed Adjustments during QO-21B	05/15/08
2008-02256	NRC Concerns with P-8B	05/20/08
2009-02763	ACE - CRD 21 Uncoupling Problems	05/19/09
2009-04734	Breaker Issues	10/09/09
2009-04758	Magnesium Rotor Inspection	10/13/09
2009-05765	Drawing Error	12/16/09
2010-00110	QO-5 Stroke Time Reference Change for CV-3046	01/11/10
2010-00702	P-8B Severity Level 2 Oil Leak	02/17/10
2010-02017	Bird debris in P-8B Floor Drain	05/17/10
2010-03319	P-8B Seal Leakage Low	08/09/10

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number CR-PLP-</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2010-03756	VT-2 Examination Performed Without Proper Lighting Verification	09/02/10
2010-03756	VT-2 Illumination Verification Inadequate	09/02/10
2010-04584	K-8 Deficiencies	10/07/10
2010-04604	AFW Power Supply Terminals Stripped	10/07/10
2010-04631	Axial Crack on K-8 Turbine Rotor	10/08/10
2010-04653	UT of Tank T-81	10/08/10
2010-05113	P-8B Overspeed Trip Test Failure	01/16/10
2010-05187	Auxiliary Feed Pump P-8C Code Repairs	10/17/10
2010-05188	Bare Metal Visual Examination Procedure	10/17/10
2010-05360	ACE - Trend in NDE Procedure Compliance	10/20/10
2010-05407	Bare metal Visual Examination Relevant Indications	
2010-05722	NRC Finding on VT-2 Examinations	10/27/10
2010-05724	NRC Finding on Bare Metal Visual Examination	10/27/10
2010-05729	NRC Finding on UT of Tank T-81	10/27/10
2010-05796	AFW Pump Would not Deliver 165 gpm Flow	10/28/10
2010-05796	P-8B Would not Deliver Flow	10/28/10
2010-06134	CCI Part 21 on Drag Valves	11/16/10
2010-06465	Part 21 - Event Number 46449 from Rosemount Nuclear	12/07/10
2010-06480	VT-2 Checklists	12/07/10
2010-06482	ASME Code Subscriptions	12/07/10
2010-01842	QA Identified-Engineering Closure of CAs to Non-CAP Processes	
2010-02651	QA Identified-M&TE Trackability Issues	06/30/10
2010-02966	Audit issues with Supplemental Worker performance	07/20/10
2010-03016	Observations on Supplemental Workers and lower tier ACE	07/23/10
2011-00104	Loss of 1F bus and Rear bus as well as P-39A Cooling Tower Pump and RCE, Rev. 0	1/08/11
2011-00336	Reactor Trip on Loss of Load	01/22/11
2011-00677	VT-2 Examiner Annual Certification	02/11/11
2011-00730	AFW Pump 8B, As Found Pump Speed Out Of Tolerance	02/14/11
2011-01019	Inconsistent Maintenance Rule Functional Failure determination and low tier ACE	03/02/11
2011-01263	NDE Coverage Question	03/15/11
2011-01341	NRC Concern on Part 21	03/18/11
2011-01389	SAMGs and B5B procedures not reviewed as required	03/22/11
2011-02413	NRR Evaluation of Bare Metal Examination Requirements	05/13/11
2011-02491	Water Leakage in Main Control Room	05/18/11
2011-02512	SAMGs outdated due to plant design changes	05/19/11

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number CR-PLP-</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2011-02666	Boric Acid on SIRW Piping	05/27/11
2011-02978	Cross Tie not Considered in GL2008-01 Response	06/14/11
2011-03004	Void Monitoring Locations	06/15/11
2011-03005	Void Monitoring Locations	06/15/11
2011-03021	ACE - Missed Surveillances for RT-71M	06/16/11
2011-03029	Gas Accumulation Concern	06/16/11
2011-03087	Invalid Assumption in 1918535-R-001	06/21/11
2011-03207	ACE – Service Water Leakage	06/26/11
2011-03256	ESSO-10 is Adequate For Flushing Air	06/29/11
2011-03281	ESSO-10 Minimum Flow Rate	06/30/11
2011-03356	Potential for Vortexing During Shutdown Cooling	07/07/11
2011-03422	Flashing During Shutdown LOCA	08/05/11
2011-03422	Void Size Determination	07/11/11
2011-04620	RCE - PCS Leak - CV-1057	10/14/11
2011-04710	Turbine Low Vacuum Alarm and Manual Turbine Trip	09/20/11
2011-04872	Pressurizer to Loop Temperature Delta Exceeded 200° F during Cooldown	09/27/11
2011-04890	Pressurizer Level Band Assigned outside of Procedure Recommended Band	09/28/11
2011-04931	Potential trend in Operator Control of the Plant and high tier ACE	09/29/11
2011-04965	Lack of Short Circuit Protection	09/30/11
2011-04978	EK-1374, LTOP pre-trip, alarm Received During Plant Heatup	09/30/11
2011-04988	50.59 Review of Temporary Modification	09/30/11
2011-05028	Turbine Started up Without Cooling to Generator	10/02/11
2011-05631	NRC identified SAMG revision still did not incorporate previous design changes	10/26/11
2011-06156	P-8B Severity Level 2 Oil Leak	11/12/11
2011-06157	P-8B Severity Level 2 Oil Leak	11/12/11
2012-00183	corrosion-induced floor deformation prevented P-50B feeder breaker from correct secondary breaker alignment	01/07/12
C-PAL-98-1694	Bird debris in P-8B Steam Traps	10/08/98

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Safety Culture Review January 1, 2010 – December 31, 2010	
LO-PLP-2011-00022	FSA Pre-NRC PI&R Inspection Assessment	12/08/11
LO-PLPLO-2010-00146	FSA on Buried Piping and Tanks	10/24/10
LO-PLPLO-2010-00159	Fleet FSA of Unit Reliability Team Effectiveness.	08/25/10
LO-PLPLO-2010-00171	FSA on Managing Gas Accumulation in ECCS	10/29/10
LO-PLPLO-2010-00180	FSA of EQ	11/03/10
LO-PLPLO-2010-00189	Containment ISI Program Self-Assessment	08/18/11
LO-PLPLO-2011-00100	Transient Snapshot Assessment of Operations Performance During the DC Bus Transient	11/09/11
LO-WTPLP-2011-00366	Actions 177-192 for the Corporate Event Review Team and Recovery Plan	10/19/11
QA-08-2011-PLP-1	Programs Engineering Audit	04/21/11
QA-10-2010-PLP-1	Maintenance Audit	08/16/10
QA-10-2010-PLP-1	QA Audit Report – Maintenance	06/21-07/15/10
QA-11-2010-PLP-1	QA Audit-MP&C	Jan to Apr 2010
QA-12-18-2011-PLP-1	Operations/Technical Specifications Audit	11/17/11
QA-3-2011-PLP-1	QA Audit Report – Corrective Action Program	4/25-6/1/11

WORK ORDERS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00270440	G1-1/DRU, Replace Digital Reference Unit	02/16/12
00270442	G1-2/DRU, Replace Digital Reference Unit	02/16/12
00232206	CV-1057, DISASSEMBLE/INSPECT/REPAIR PM	11/29/10

CONDITION REPORTS GENERATED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2012-00831	2012 PI&R NRC Identified Issue associated with Emergency Boration of the PCS following the 9/25/11 reactor trip.	02/03/12
2012-0953	Test Parameters for Snubbers in EM-09-07 need to be Reevaluated	2/9/2012
2012-1045	SCR 10-131 not Completed or Submitted to Records per EN-IT-104	2/13/2012
2012-1046	Incorrect Revision of LR-TR-014-TLAA was provided to NRC	2/13/2012
2012-1072	No Basis Found for 350 F Limit on Delta T Between Pressurizer Spray and Pressurizer Vapor Phase as	2/14/2012

CONDITION REPORTS GENERATED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2012-1185	Specified in SOP-1B GL 2008-01 FSA Action not Initiated	2/21/2012

OPERATING EXPERIENCE

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CR-PLP-2010-01734	NRC Information Notice 2010-09	05/11/10
CR-PLP-2010-06134	Part 21 on CCI Drag Valves	11/26/10
CR-PLP-2010-06631	Fuel Assembly Alignment	
CR-PLP-2010-06634	NRC Information Notice 2010-21	
CR-PLP-2010-06764	NRC Information Notice 2010-26	
CR-PLP-2011-01713	NRC Information Notice 2011-02	04/06/11
CR-PLP-2012-00255	Alkali-Silica Reaction	01/12/12
OE-2010-00202	NRC Part 21 2010-03	05/03/10
OE-2010-00522	NRC Part 21 2010-20	09/14/10
OE34226*OE33673 20110917	Missing Reactor Building Weld Channel Test Connection	01/06/12
CR-PLP-2011-04209	NRC Information Notice 2011-12	
OE-2011-0917	Missing Reactor Building Weld Channel Test Connection Caps	9/19/11

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	2010-2012 SCWE Survey Results	
	CARB Meeting Agenda	2/14/12
	CRG Screening Package	2/14/12
	Nuclear Safety Culture Monitoring Panel Minutes and Report	12/15/11
	OE Screening Sheet	02/01/12
	Operations Department Safety Culture Survey	January 2012
	Palisades Performance Recovery Plan	various
	Quarterly Trend Report	02/17/12
	SARB Meeting Agenda	2/14/12
	SARB Meeting Agenda	2/17/12
	Second Quarter 2011 Trend Report	
	System Health Report-AFW	02/15/12
FWS170	AFW Turbine Gland Seal Inspection	05/17/01
L0-WTPLP-	Enhancements for CR-PLP 2010-06259 Operations	01/27/11

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2011-37	SCWE Issues	
L0-WTPLP- 2012-00088	Develop a plan for addressing the January 2012 Orations SCWE survey results.	2/3/12

LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
CAP	Corrective Action Program
CAQ	Condition Adverse to Quality
CR	Condition Report
DC	Direct Current
DRS	Division of Reactor Safety
EACE	Equipment Apparent Cause Evaluation
ECP	Employee Concerns Program
EIT	Emergent Issue Team
FSA	Focused Self-Assessment
LO	Learning Organization
IP	Inspection Procedure
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records System
PI&R	Problem Identification and Resolution
QA	Quality Assurance
RCE	Root Cause Evaluation
SCWE	Safety Conscious Work Environment
SW	Service Water
WO	Work Order

A. Vitale

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Sincerely,

/RA/

John B. Giessner, Branch Chief
Branch 4
Division of Reactor Projects

Docket No. 50-255
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Letter to A. Vitale from J. Giessner dated March 16, 2012.

SUBJECT: PALISADES NUCLEAR PLANT - PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000255/2012007

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