UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
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LISLE, IL 60532-4352

June 20, 2014

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 – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000255/2014007

Dear Mr. Vitale:

On June 11, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution Inspection at your Palisades Nuclear Plant. The enclosed inspection report documents the inspection results, which were discussed at an interim exit meeting on May 23, 2014, and a final exit meeting on June 11, 2014, with you and other members of your staff.

The inspection examined activities conducted under your license as they related 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 samples selected for review, the inspectors concluded that the Corrective Action Program at Palisades Nuclear Plant was adequate in the areas of identifying, evaluating and correcting issues with some identified opportunities for improvement. There was a low threshold for identifying issues and entering them into the Corrective Action Program. The significance of the issues was screened using risk insights and the significance drove the prioritization of issue evaluation and resolution. Evaluations were adequate, overall, in determining the underlying cause of the issues and corrective actions were generally implemented in a timely manner, commensurate with their safety significance. Operating experience was evaluated and entered into the Corrective Action Program, if applicable. The use of operating experience was integrated into daily activities and found to be effective in preventing similar issues at the plant. In addition, self-assessments, audits, and effectiveness reviews were found to be conducted at a sufficient depth for all departments. The assessments reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. Based on the results of the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment (SCWE) at Palisades Nuclear Plant with the exception of the Security Department. Licensee staff was aware of and generally familiar with the Corrective Action Program and other station processes, including the Employee Concerns Program, through which concerns could be raised. The staff was also comfortable raising concerns without fear of retaliation.

As discussed in NRC Inspection Report 05000255/2014009, dated March 6, 2014, the NRC performed a limited scope Problem Identification and Resolution inspection that identified a chilled work environment within the Security Department. In particular, the NRC concluded that staff within the Security Department perceived that: (1) recent actions to terminate the employment of two supervisors was in retaliation for their raised concerns; (2) the Corrective Action Program was ineffective at addressing equipment and other concerns raised by the Security staff; (3) Security management was unresponsive to employees' concerns; and (4) the Employee Concerns Program could not be relied upon to maintain employee confidentiality.

In response to our identification of a chilled work environment within the Security Department, you developed the Palisades Security SCWE Action Plan and the NRC planned to review the effectiveness of actions taken to implement the Action Plan.

During this inspection, we reviewed your implementation of the Palisades Security SCWE Action Plan and verified that, to date, you have completed all of the actions as committed to in the Action Plan. However, we concluded that the quality of the actions implemented have been insufficient to assess and understand the cause of the chilled work environment within the Security Department and did not demonstrate a strong commitment to effectively improve the safety conscious work environment in the Security Department. Specifically, significant gaps were found to exist in the security officers' knowledge of the actions being taken to address the chilled safety conscious work environment and management's commitment to improving the overall safety conscious work environment.

For example, security officers had a limited recollection of any discussion of the results of the NRC's limited scope Problem Identification and Resolution inspection, and security officers stated that they were not informed of the site's development and implementation of a Security SCWE Action Plan or the specific actions required by the Action Plan. Also, the security officers were unaware of the establishment of the site's Security Ombudsman Program as directed in the Action Plan; the intent of the program; or their shift representatives for the Program, despite the selection and assignment of personnel to these positions at the end of March 2014. Lastly, the security officers were unaware of a significant organizational change that added the Regulatory and Performance Improvement Director to the Security Department chain of command.

Therefore, we are requesting that you provide a response to us, within 30 days of your receipt of this letter, that outlines actions that you have taken or plan to take to further enhance your Palisades Security SCWE Action Plan to improve the safety conscious work environment in the Security Department at Palisades. The NRC will continue to closely monitor Security Department safety conscious work environment and any supplemental actions that you may choose to take with a follow-up inspection.

We plan to discuss with you the results of our safety conscious work environment inspections during the upcoming End-of-Cycle assessment public meeting. The NRC requests that you be prepared to discuss: (1) the root cause of the chilled work environment within the Security Department; (2) your progress in addressing the safety conscious work environment concerns within the Security Department; and (3) any additional actions planned and/or implemented to address the safety conscious work environment at Palisades, including actions as a result of our observations during this Problem Identification and Resolution inspection.

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 (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Eric Duncan, Chief
Branch 3
Division of Reactor Projects

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

Enclosure:
Inspection Report No. 05000255/2014007
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-255
License No:	DPR-20
Report No:	05000255/2014007
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Palisades Nuclear Plant
Location:	Covert, MI
Dates:	May 5, 2014, through June 11, 2014
Team Leader:	R. Ng, Project Engineer
Inspectors:	A. Scarbeary, Resident Inspector C. Zoia, License Examiner E. Sanchez-Santiago, Reactor Inspector G. Hansen, Physical Security Inspector
Approved by:	E. Duncan, Chief Branch 3 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report 05000255/2014007; 05/05/2014 – 06/11/2014; Palisades Nuclear Plant; Problem Identification and Resolution.

This inspection was performed by four region-based inspectors and the Palisades 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 samples selected for review, the inspectors concluded that the Corrective Action Program at Palisades Nuclear Plant was adequate in the areas of identifying, evaluating and correcting issues with some identified opportunities for improvement. The licensee had a low threshold for identifying issues and entering them into the Corrective Action Program. The significance of the issues was screened using risk insights and the significance drove the prioritization of issue evaluation and resolution. Evaluations were adequate, overall, in determining the underlying cause of the issues and corrective actions were generally implemented in a timely manner, commensurate with their safety significance. Operating experience was evaluated and entered into the Corrective Action Program, if applicable. The use of operating experience was integrated into daily activities and found to be effective in preventing similar issues at the plant. In addition, self-assessments, audits, and effectiveness reviews were found to be conducted at a sufficient depth for all departments. The assessments reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. Based on the results of the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment (SCWE) at Palisades Nuclear Plant with the exception of the Security Department. Licensee staff was aware of and generally familiar with the Corrective Action Program and other station processes, including the Employee Concerns Program, through which concerns could be raised. The staff was also comfortable raising concerns without fear of retaliation.

Although implementation of the Corrective Action Program was determined to be adequate, the inspectors identified several issues that were either minor in nature and/or represented a potential weakness in the program.

The inspectors concluded that, to date, the site had completed all the actions as committed to in the Security SCWE Action Plan. However, the inspectors concluded that the quality of the actions implemented have been insufficient to assess and understand the cause of the chilled work environment within the Security Department and did not demonstrate a strong commitment to effectively improve the safety conscious work environment in the Security Department. Specifically, significant gaps were found to exist in the security officers' knowledge of the actions being taken to address the chilled safety conscious work environment and management's commitment to improving the overall safety conscious work environment.

Based on the information reviewed during this inspection, the inspectors concluded that the control room structure continues to perform its intended safety function, and the installed modifications, if maintained, are adequate to prevent water intrusion into the control room. Therefore, the inspectors determined that the licensee had fulfilled the Confirmatory Action Letter commitments to address the Safety Injection Refueling Water Tank (SIRWT) and Control Room concrete support structure leakage.

A. NRC-Identified and Self-Revealed Findings

None.

B. Licensee-Identified Violations

None.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

This inspection constituted one biennial sample of Problem Identification and Resolution as defined by Inspection Procedure 71152, "Problem Identification and Resolution." Documents reviewed are listed in the Attachment to this report.

.1 Assessment of the Corrective Action Program Effectiveness

Inspection Scope

The inspectors reviewed the procedures and processes that described the Corrective Action Program at Palisades Nuclear Plant to ensure, in part, that the requirements of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," were met. The inspectors observed and evaluated the effectiveness of meetings related to the Corrective Action Program, such as the Condition Report Prescreening meeting, the Condition Review Group meeting, and the Corrective Action Review Board meeting. Selected licensee personnel were interviewed to assess their understanding of and their involvement in the Corrective Action Program.

The inspectors reviewed selected condition reports across all seven Reactor Oversight Process cornerstones to determine if problems were being properly identified and entered into the licensee's Corrective Action Program. The majority of the risk-informed samples of condition reports reviewed were issued since the last NRC biennial Problem Identification and Resolution inspection completed in February 2012. The inspectors also reviewed selected issues that were more than 5 years old.

The inspectors assessed the licensee's characterization and evaluation of the issues and examined the assigned corrective actions. This review encompassed the full range of safety significance and evaluation classes, including root cause evaluations, apparent cause evaluations, common cause evaluations, condition report responses, and human performance error reviews. The inspectors assessed the scope and depth of the licensee's evaluations. For significant conditions adverse to quality, the inspectors evaluated the licensee's corrective actions to prevent recurrence and for less significant issues, the inspectors reviewed the corrective actions to determine if they were implemented in a timely manner commensurate with their safety significance.

The inspectors selected the Auxiliary Feedwater Actuation System and Reactor Protection System power supply components to review in detail over a 5 year period. Both systems were safety-related and risk-significant Maintenance Rule (a)(1) systems with previously identified power supply component problems. At the time of the inspection, the Reactor Protection System was in a Maintenance Rule (a)(1) status, and the Auxiliary Feedwater Actuation System had recently returned from a Maintenance Rule (a)(1) status to a Maintenance Rule (a)(2) status. The primary purpose of this review was to determine whether the licensee was properly monitoring and evaluating the performance of risk-significant systems. The inspectors also assessed the licensee's implementation of various system monitoring programs and performed

walkdowns, as needed, to verify the resolution of issues. As part of this review, the inspectors interviewed the current and previous system engineers, reviewed a sample of system health reports, condition reports, operating experience, apparent cause evaluations, and root cause evaluations. The inspectors also attended the Plant Health Committee Meeting to observe the process the licensee used for identifying, prioritizing, and resolving issues that challenged unit reliability. The inspectors reviewed Corrective Action Program and work management system procedures that provided guidance for trending. In addition, the inspectors walked down the Auxiliary Feedwater Actuation System panel area to visually inspect recent power supply-related maintenance and to verify that identified concerns were entered into the Corrective Action Program.

The inspectors examined the results of self-assessments of the Corrective Action Program completed during the review period. The results of the self-assessments were compared to self-revealed and NRC-identified findings. The inspectors also reviewed the corrective actions associated with previously identified non-cited violations and findings to determine whether the station properly evaluated and resolved those issues. The inspectors performed walkdowns, as necessary, to verify the resolution of the issues.

Assessment

(1) Identification of Issues

Based on the results of the inspection, the inspectors concluded that, overall, the station was effective in identifying issues at a low threshold and properly entering them into the Corrective Action Program. The inspectors determined that problems were usually identified and captured in a complete and accurate manner in the Corrective Action Program. The station was appropriately screening issues from both NRC and industry operating experience at an appropriate level and entering them into the Corrective Action Program when the issues were applicable to the station. The inspectors also noted that deficiencies were identified by external organizations, including the NRC, that had not been previously identified by licensee personnel. These deficiencies were subsequently entered into the Corrective Action Program for resolution.

The inspectors determined that the station was generally effective at trending low level issues to prevent more significant issues from developing. The licensee also used the Corrective Action Program to document instances where previous corrective actions were ineffective or were inappropriately closed.

The inspectors concluded that power supply-related concerns were identified and entered into the Corrective Action Program at a low threshold, and concerns were resolved in a timely manner commensurate with their safety significance.

(2) Prioritization and Evaluation of Issues

Based on the results of the inspection, the inspectors concluded that the station was adequately prioritizing and evaluating issues commensurate with the safety significance of the identified issue, which included a consideration of risk.

The inspectors determined that the Condition Report Prescreening meeting, the Condition Review Group meeting, and the Corrective Action Review Board meeting were

all generally thorough and maintained a high standard for evaluation quality. Members of the Condition Review Group discussed selected issues in sufficient detail and challenged the responsible department representatives regarding their conclusions and recommendations.

The inspectors performed a detailed review of issues related to the Reactor Protection System and Auxiliary Feedwater Actuation System power supplies over roughly the past 5 years. The inspectors concluded that the evaluation of design issues, along with failure analyses, provided for a thorough review of potential causes of issues. The corrective actions already implemented to evaluate the extent of condition of an issue and those being completed to revise the design of the power supplies were being implemented in a timely manner commensurate with the safety significance of the issues. The inspectors noted that the licensee generally exhibited no reluctance in placing structures, systems, and components into a Maintenance Rule (a)(1) status. Appropriate corrective actions to address identified maintenance deficiencies were prescribed and completed. A detailed review of the structures, systems, and components performance generally occurred before returning such structures, systems, and components to a Maintenance Rule (a)(2) status.

The inspectors determined that the licensee typically evaluated equipment functionality requirements adequately after a degraded or non-conforming condition was identified. Overall, appropriate actions were assigned to correct the degraded or non-conforming condition.

Vulnerabilities in Condition Evaluations

The inspectors identified several instances in which the licensee's evaluation lacked sufficient quality to address the condition such that a technically competent reviewer could understand how the corrective actions would correct the identified condition. This lack of quality could potentially impact the licensee's ability to identify adequate corrective actions. The inspectors identified the following condition reports as examples where the licensee's evaluation lacked sufficient quality:

- *Foreign Material Intrusion Effectiveness Review*

  Condition Report CR-PLP-2012-05054, "Root Cause Evaluation Report for Foreign Material Intrusion P-74, SIRWT Recirculation Pump," evaluated a foreign material intrusion event in July 2012 that affected the Safety Injection Refueling Water Tank recirculation pump. The effectiveness reviews performed by the licensee did not establish the proper threshold to identify issues at a level that could be addressed prior to the issue becoming a more significant concern. In the root cause evaluation report, the licensee documented that the foreign material intrusion event was caused by a failure to follow the foreign material excursion procedure. However, the failure threshold for the effectiveness review performed was a failure to follow procedures that resulted in foreign material intrusion. During the effectiveness review, the licensee identified failures to follow the foreign material excursion procedure. However, the licensee concluded in the effectiveness review that the corrective actions were effective because no foreign material intrusion event actually occurred.

The inspectors reasoned that the absence of a foreign material intrusion given a failure to follow the foreign material excursion procedure may have been fortuitous, rather than deliberate. Subsequently, an actual foreign material intrusion event occurred, which further demonstrated that the corrective actions might not have been effective. Specifically, when installing an inflatable bladder inside the Service Water system, on two occasions these bladders were inadvertently entrained into the return header of the Service Water system by the relative vacuum created by the system flow. It was determined that this was a result of the failure to establish adequate controls as required by the foreign material excursion procedure. This issue was documented as a non-cited violation in NRC Inspection Report 05000255/2014002.

- *Vital Area Doors Alarm Evaluation*

  While reviewing the common cause analysis for Condition Report CR-PLP-2013-4391, "Trend in Vital Area Doors Found Unsecured," the inspectors identified issues with the thoroughness of the initial evaluation for the identified trend and the methodology used for the effectiveness review of the corrective actions implemented. The common cause analysis reviewed 40 instances of unsecured vital area doors that occurred between January and October 2013. The analysis identified the departments that were responsible for the doors being found unsecured and the month the issue occurred. The evaluation identified a lack of use of appropriate human performance tools associated with verifying that security doors were properly latched and closed after use. The corrective actions resulting from this trend analysis were to reinforce with site personnel and supplemental employees the proper human performance tools to use when traversing through security doors and actions to take if a door did not properly close. This common cause analysis did not evaluate potential mechanical issues with the doors that would not allow them to close properly.

  The effectiveness review for this trend reviewed 20 instances of unsecured vital area doors that occurred between January 15 and March 16, 2014. This review compared the number of times the door was used to how many times the door was found unsecured. The effectiveness review determined that a low percentage of errors occurred during this timeframe, and therefore the issue was resolved with no additional actions needed. This was a different methodology with a different acceptance standard than the initial common cause analysis used since in the identification of security door violations originally identified, the number of violations was focused on, and in the follow-up review, the failure rate was focused on. These observations were discussed with the licensee. Subsequent to the effectiveness review, the licensee identified an adverse trend station-wide for the number of security door violations that occurred and planned to re-evaluate both the human performance and the mechanical door operation components of this issue and initiate follow-on corrective actions to address them.

The inspectors concluded that a lack of quality in some evaluations existed and that this was similar to what was documented in the previous biennial Problem Identification and Resolution inspection.

During this inspection, although the inspectors did not identify any findings related to the lack of quality in evaluations, a minor violation related to a Part 21 evaluation is documented in Section 4OA2.2.b of this report. Therefore, based on the samples reviewed during this inspection, the quality of evaluations, overall, appeared to be improving.

(3) Effectiveness of Corrective Actions

Based on the results of the inspection, the inspectors concluded that the licensee was generally effective in addressing identified issues and that the assigned corrective actions were generally appropriate. The licensee implemented corrective actions in a timely manner, commensurate with their safety significance, including an appropriate consideration of risk. Problems identified using root or apparent cause methodologies were resolved in accordance with the Corrective Action Program procedural and regulatory requirements. Corrective actions designed to prevent recurrence were generally comprehensive, thorough, and timely. The inspectors sampled corrective action assignments for selected NRC documented violations and determined that actions assigned were generally effective and timely.

For example, the licensee received a non-cited violation in 2002 for the failure to operate the primary coolant pumps in accordance with their design operating criteria. The inspectors verified that the licensee's evaluations for the issue were comprehensive and the corrective actions completed and planned were appropriate and timely, commensurate with their safety significance.

The licensee's pre-inspection review identified several instances where corrective actions were closed inappropriately and that additional actions were needed to complete the closeout of the corrective actions. The inspectors determined these discrepancies were minor compliance issues with the licensee's Corrective Action Program procedures and the licensee had taken appropriate actions to address these issues.

The inspectors also identified that there were approximately 260 open corrective action items at the time of the inspection. However, only 20 of these open corrective action items were more than 2 years old. The inspectors reviewed a sample of these corrective action items and verified that the sampled condition reports were evaluated and actions assigned appropriately. The inspectors determined that most of the remaining actions were related to a fire protection license amendment request, which was in the NRC review process. Other corrective actions were related to minor non-conformances or enhancements with low safety significance. For those corrective actions that were safety significant, the inspectors verified that the due dates were reasonable and the licensee had appropriate compensatory actions in place.

Through interviews with the licensee staff and a review of the trend of the total outstanding corrective actions over the last 5 years, the inspectors determined that the licensee had been reducing the corrective action backlog.

c. Findings

No findings were identified.

.2 Implementation of Corrective Actions Generated Following NRC Inspection Procedure (IP) 95002 Supplemental Inspection

a. Inspection Scope

The inspectors reviewed the IP 95002 supplemental inspection action items that were implemented since the completion of an IP 95002 supplemental inspection on November 9, 2012. This supplemental inspection was related to a Yellow finding documented in NRC Inspection Report 05000255/2011019 and 0500025/2011020. The Yellow finding was associated with the loss of the Left train of direct current (DC) power due to the failure to ensure that the work instructions on a safety-related 125-Volt DC distribution panel were adequate for the scheduled work. The results of this supplemental inspection were documented in NRC Inspection Report 05000255/2012011.

b. Assessment

The inspectors reviewed Condition Report CR-PLP-2011-04822, which was the overarching condition report for the issue that resulted in the Yellow finding, and found that the associated corrective actions had been planned and implemented. There were various tasks associated with this condition report that were completed subsequent to the supplemental inspection. These actions included development and implementation of training to address the deficiencies identified as part of the root cause analysis, as well as actions to review the root cause report and completed corrective actions to ensure any additional issues and/or concerns identified had already been addressed and did not invalidate the actions taken. The inspectors reviewed the completed corrective actions and found them to be adequate.

c. Findings

No findings were identified.

.3 Implementation of Corrective Actions Generated Following NRC IP 95001 Supplemental Inspection

a. Inspection Scope

The inspectors reviewed the corrective actions that were implemented and the effectiveness reviews of those corrective actions that had been conducted since the completion of an IP 95001 supplemental inspection on June 29, 2012. This supplemental inspection was related to a White finding associated with the Turbine-Driven Auxiliary Feedwater pump that was documented in NRC Inspection Report 05000255/2011013 and 05000255/2011017. The results of this supplemental inspection were documented in NRC Inspection Report 05000255/2012010.

b. Assessment

The inspectors reviewed Condition Report CR-PLP-2011-5723 and the associated root cause evaluation report, “Auxiliary Feedwater Pump P-8B Overspeed Trip Actuation,” and found that all of the associated corrective actions had been implemented. Two effectiveness reviews had also been completed to evaluate the adequacy of the

corrective actions implemented. The first effectiveness review conducted in April 2012 examined the revisions to the maintenance procedure for the Auxiliary Feedwater Pump, and identified some enhancements to be included in the procedure based on information in the root cause evaluation. The inspectors reviewed the most current revision of this maintenance procedure and found that all of those enhancements had been included in the document. The second effectiveness review examined maintenance records, condition reports generated, and operations' logs to determine if any unexpected Limiting Condition for Operation entries were made, or Limiting Condition for Operation time was extended, due to maintenance issues related to the Turbine-Driven Auxiliary Feedwater Pump. This review was conducted in April 2014 after the most recent refueling outage (refueling outage maintenance caused the issues the led to the White finding initially), and concluded that there were no maintenance-induced problems related to this pump. All corrective actions associated with the aforementioned condition report and root cause evaluation, and all effectiveness reviews had been completed for this White finding. The inspectors reviewed all of this information and determined that the actions implemented were adequate.

c. Findings

No findings were identified.

.4 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience Program. Specifically, the inspectors reviewed the Operating Experience Program implementing procedures and licensee evaluations of operating experience issues and events. The inspectors also observed meetings and daily activities for the use of operating experience information to determine whether the licensee was effectively integrating operating experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's Operating Experience Program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used operating experience information in the planning and performance of departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of operating experience, were identified and implemented effectively and in a timely manner. In addition, the inspectors interviewed the Operating Experience Program owner to obtain insights on its use.

b. Assessment

Based on the results of the inspection, the inspectors concluded that, overall, operating experience was effectively utilized at the station. The inspectors observed that representatives from different sites held periodic meetings to discuss recently published operating experience. Issues that were applicable to the Palisades Nuclear Plant were entered into the Corrective Action Program for resolution. Industry operating experience was effectively disseminated across plant departments through daily and pre-job briefings.

Nonetheless, the inspectors noted the following licensee identified minor violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," related to a 10 CFR Part 21 evaluation.

Deficiencies in Part 21 Evaluation

On November 8, 2012, Fisher Control International submitted a Part 21 report that described certain butterfly valve parts that did not receive proper commercial grade dedication. These parts were considered essential-to-function and were required for the butterfly valve assembly to perform its safety-related function. Fisher Control International requested the recipients of the Part 21 report to review this information for applicability to their equipment and facilities and take appropriate actions, if required.

The licensee entered this issue in the Corrective Action Program on November 20, 2012. The licensee contacted Fisher Control International and identified that two installed safety-related Component Cooling Heat Exchanger temperature control valves were affected. The licensee concluded that the valves would perform their design function, but did not clearly document the basis of that conclusion. In addition, Fisher Control International also communicated to the licensee that they had identified and notified the licensee of other components that might not have been commercially dedicated properly due to an ambiguity in the purchase orders. However, the licensee did not research this matter any further.

In May 2013 during an audit, Nuclear Oversight identified that the Part 21 evaluation was inadequate to support the conclusion that it was acceptable to use the butterfly valve as-is and did not address all the issues communicated by Fisher Control International. Subsequently, an operability evaluation was performed, which concluded that all of the equipment impacted remained operable, but were non-conforming.

The inspectors determined that this was a licensee-identified minor violation of 10 CFR 50, Appendix B, Criteria XVI, "Corrective Action." This failure to comply with the Appendix B requirement constituted a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy. A replacement of the affected equipment was scheduled for the next refueling outage.

c. Findings

No findings were identified.

.5 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed selected self-assessments, bench markings, "Snap-shot" self-assessments, and Nuclear Oversight audits, as well as the schedule of past and future assessments. The inspectors evaluated whether these audits and self-assessments were effectively managed, adequately covered the subject areas, and properly captured identified issues in the Corrective Action Program. In addition, the inspectors interviewed licensee personnel regarding the implementation of the audit and self-assessment programs.

b. Assessment

Based on the results of the inspection, the inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. The inspectors concluded that these audits and self-assessments were completed by personnel knowledgeable in the subject area. In many cases, these self-assessments and audits had identified numerous issues that were not previously recognized by the station. These issues were entered into condition reports as required by Corrective Action Program procedures.

c. Findings

No findings were identified.

.6 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors interviewed 19 Palisades Nuclear Plant personnel to determine if there were any indications that licensee personnel were reluctant to raise safety concerns to either their management or the NRC due to fear of retaliation. These individuals represented various departments onsite including Engineering, Maintenance, Operations, Radiation Protection, and Security. The inspectors also assessed the licensee's safety conscious work environment through a review of Employee Concerns Program implementing procedures, discussions with the Employee Concerns Program Manager, and reviews of condition reports. The inspectors reviewed selected Employee Concerns Program activities to identify any emergent issues or potential trends. The licensee's actions to publicize the Corrective Action Program and Employee Concerns Program were also reviewed. The review was performed to ensure there was a free flow of information and to determine if individuals were willing to raise nuclear safety concerns without fear of retaliation.

b. Assessment

As discussed in NRC Inspection Report 05000255/2014009, dated March 6, 2014, the NRC performed a limited scope Problem Identification and Resolution inspection that focused on an assessment of the safety conscious work environment in the Chemistry Department, Security Department, and Mechanical Maintenance working group. This inspection was performed as a result of the NRC's receipt of several safety conscious work environment or safety culture-related concerns that prompted questions into the progress made in implementing the licensee's Recovery Plan regarding safety culture deficiencies that, in part, contributed to two Greater-than-Green findings identified in 2011.

The NRC identified a chilled work environment in the Security Department as documented in NRC Inspection Report 05000255/2014009. The licensee implemented a number of corrective actions to address the chilled environment in the Security Department.

During this inspection, the inspectors determined that the safety conscious work environment and overall performance related to identifying, evaluating, and resolving problems was acceptable for the site in general. However, the assessment below was not characteristic of the safety conscious work environment in the Security Department. A detailed review of the licensee's Security SCWE Action Plan is discussed in Section 4OA5.2 of this report.

With the exception of the Security Department, the inspectors did not identify any issues that suggested conditions were not conducive to the establishment and existence of a safety conscious work environment at Palisades Nuclear Plant. Licensee staff was aware of and familiar with the Corrective Action Program and other station processes, including the Employee Concerns Program, through which concerns could be raised.

The inspectors did not review the site Safety Culture and SCWE surveys and assessments during this inspection because these documents were recently reviewed as part of the limited scope Problem Identification and Resolution inspection and the conclusions from that inspection remained valid. The results indicated that there were no impediments to the identification of nuclear safety issues.

The staff also indicated that management had been focused on promoting an environment that encourages raising issues and concerns without fear of retaliation. The formal policy was communicated at all hands meetings, shift turnover meetings, and through other communication venues, such as newsletters and emails. Department managers and supervisors promoted a safety conscious work environment and reinforced senior management's policy.

Individuals were comfortable raising issues and concerns without fear of retaliation. Overall, they felt that condition reports were given the appropriate priority and actions taken to close condition reports were effective in addressing the identified issues.

c. Findings

No findings were identified.

4OA5 Other Activities

.1 Confirmatory Action Letter (CAL) – Palisades Nuclear Plant Commitments to Address SIRWT and Control Room Concrete Support Structure Leakage

As documented in NRC Letter EA-12-155, "Confirmatory Action Letter (CAL) Revision 1 – Palisades Nuclear Plant Commitments to Address Safety Injection Refueling Water Tank (SIRWT) and Control Room Concrete Support Structure Leakage," (ADAMS ML13177A280) the NRC concluded that the structural integrity of the Safety Injection Refueling Water Tank was sufficient to meet its intended safety function, which addressed three of the five CAL items. The remaining two CAL items associated with the control room support structure were as follows:

1. Entergy Nuclear Operations, Inc., (ENO) will continue inspections of the concrete support structure above the control room, control room hallway, and the concrete support structure ceiling as prescribed in the approved Operations Standing Order. These inspections are to ensure that the

temporary modifications installed to prevent impact to safety-related structures, systems and components are performing their intended functions.

2. ENO will correct the adverse condition related to cracking of the concrete support structure around the ceiling of the control room, which could lead to water intrusion, prior to restart from the next refueling outage.

To address these items, the licensee performed a modification in the catacombs area above the control room. This modification included the installation of a waterproof membrane and a design feature to divert water away from the control room, in the event of a leak into the catacombs area. The licensee also performed inspections of the areas where SIRWT leakage could occur, including the catacombs area, until all modification activities were complete.

The inspectors performed a review of the engineering change package that documented the details of the modification and the analyses performed to determine acceptability. The inspectors ensured that the licensee addressed the capability of this system as well as other impacts that the addition of the waterproof membrane could have on other equipment. The inspectors also performed a walkdown of the areas below the catacombs to ensure a water intrusion scenario would not impact other safety-related equipment. The inspectors reviewed the logs that described the licensee's inspections that were performed to ensure these inspections were adequate to identify any water intrusion and were performed in accordance with the CAL commitment.

Based on the information reviewed during this inspection, the inspectors concluded that the control room structure continues to perform its intended safety function, and the installed modifications, if maintained, are adequate to prevent water intrusion into the control room. Therefore, the inspectors determined that the licensee had fulfilled its commitments to address the Safety Injection Refueling Water Tank and control room concrete support structure leakage.

Separate correspondence will be issued to formally close Confirmatory Action Letter EA-12-155.

.2 Security Safety Conscious Work Environment Action Plan

The inspectors performed an independent evaluation of the site's implementation of the Security Safety Conscious Work Environment (SCWE) Action Plan. The plan was developed by the site and was being implemented in response to the NRC's identification of a chilled work environment within the Security Department during the December 2013 limited scope Problem Identification and Resolution inspection, which was documented in NRC Inspection Report 05000255/2014009 (ADAMS ML14064A569). The inspectors performed an independent review of the licensee's implementation of the Security SCWE Action Plan. The inspection included a review of the licensee's implementation and completion of SCWE Action Plan actions; two focus group meetings with 19 non-supervisory level security officers; and interviews with the Regulatory and Performance Improvement Director, Security Manager, and the Employee Concerns Program Manager.

Specific observations included the following:

- Security officers had a limited recollection of discussing the results of the NRC's limited scope Problem Identification and Resolution inspection that was completed in February 2014. Security officers recalled being told that the NRC stated there "appears to be a potential chilled work environment in Security." The security officers stated that they believed the site did not feel there was a chilled work environment, but was only taking actions in response to the NRC's conclusions.

  During an interview with the Security Manager, additional details on the dissemination of the inspection results were obtained. Specifically, security officers were provided the inspection report as an email attachment in advance of the Security Manager meeting with each of the security shifts. At the meetings, hard copies of the report were available for the security officers to reference and retain, as desired. The Security Manager acknowledged discussing the NRC's conclusions, but validated the fact that security officers were told the NRC stated there "appears to be a potential chilled work environment in Security."

- Security officers stated they were never informed of the site's development and implementation of a Security SCWE Action Plan and were unaware of the specific actions required by the existing plan.

- Security officers perceived site management to be simply "putting checks in the block" to credit completion of action items and were not committed to changing the existing safety conscious work environment issues in the Security Department.

- Security officers identified a lack of interaction with supervisory and management personnel above the Security Shift Supervisor level within the Security Department and site senior management personnel external to the Security Department. Security officers did acknowledge an increase in the attendance of Security Operations Superintendents at shift turnover meetings.

- Security officers were unaware of the establishment of the site's Security Ombudsman Program and the intent of the program. Additionally, the security officers were unaware of who the security ombudsman was for their respective shift despite the selection and assignment of staff to these positions at the end of March 2014.

- Security officers were not aware of a change in the site security chain of command. Specifically, the fact that the Palisades Security Manager no longer reported to the Entergy Corporate Security Director, but reported to the Site Vice President through the Regulatory and Performance Improvement Director was not communicated. In addition, security officers were not introduced to the Regulatory and Performance Improvement Director.

- Since November 2013, the site's Aggregate Performance Review rated the Security Department as Green in the area of Nuclear Safety. At an Aggregate Performance Review Meeting conducted on May 19, 2014, this rating was challenged by a manager outside the Security Department and, as a result of this

challenge, the participants agreed the Security Department should be rated Red in this area due to the chilled work environment identified in the department. Since November 2013, the Security Department had been rating this area as Green in the Department Performance Review and this rating was unchallenged by senior management until the May 2014 Aggregate Performance Review Meeting.

The inspectors concluded that, to date, the site had completed all the actions as committed to in the Security SCWE Action Plan. However, the inspectors concluded that the quality of the actions implemented have been insufficient to assess and understand the cause of the chilled work environment within the Security Department and did not demonstrate a strong commitment to effectively improve the safety conscious work environment in the Security Department. Specifically, significant gaps were found to exist in the security officers' knowledge of the actions being taken to address the chilled safety conscious work environment and management's commitment to improving the overall safety conscious work environment.

4OA6 Management Meetings

a. Interim Exit Meeting

On May 23, 2014, the inspectors presented the preliminary inspection results to Mr. A. Vitale, Site Vice President, and other members of the licensee staff.

b. Exit Meeting

On June 11, 2014, the inspectors presented the final inspection results to Mr. A. 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

A. Vitale, Site Vice President
W. Nelson, Training Manager
G. Heisterman, Maintenance Manager
A. Notbohm, CA&A Manager
O. Gustafson, Regulatory and Performance Improvement Director
D. Corbin, Operations Manager
M. Seleski, Chemistry Supervisor
C. Plachta, Nuclear Oversight Manager
B. Davis, Engineering Director
E. Chetfield, Employee Concern Program Manager
D. Lucy, Planning, Scheduling and Outage Manager
J. Wright, Radwaste Supervisor
J. Ridley, Emergency Preparedness Coordinator
J. Haverly, Security Supervisor

NRC

A. Boland, Director, Division of Reactor Projects
E. Duncan, Branch Chief, Division of Reactor Projects
A. Garmoe, Senior Resident Inspector
A. Scarbeary, Resident inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

Attached

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.

Condition Reports

CR-PLP-2007-05898	Greater than Green Security Finding Identified	November 6, 2007
CR-PLP-2008-04279	Adverse Trend in Power Supply Failures	October 16, 2008
CR-PLP-2009-04028	Increasing Trend in Number of Maintenance Rule a(1) Issues and Repeat Equipment Failures at Palisades	August 21, 2009
CR-PLP-2009-04831	Four New Capacitors for P/S-0110A Have Different Size Case than the Installed Ones	October 16, 2009
CR-PLP-2009-05002	Declining Trend in RPS Voltage Converter +15 Vdc Output	October 29, 2009
CR-PLP-2010-00315	Potential Adverse Trend with Scaffold Periodic Inspection	January 22, 2010
CR-PLP-2010-00551	Additional Operability and/or Mitigating Action Guidance is Needed Regarding the Effect of Unfiltered Air In-Leakage into the Control Room Envelope	February 8, 2010
CR-PLP-2010-02351	Received Alarm EK-0601A, Variable High Power Level Channel Trip	June 13, 2010
CR-PLP-2010-02551	Received Unexpected AFAS Alarms in the Control Room	June 27, 2010
CR-PLP-2010-03292	P-55C, 'C' Charging Pump, Declared Maintenance Rule Unavailable	August 6, 2010
CR-PLP-2010-03809	Functional Failure Determination Performed for CR-PLP-2010-2551 Determined the Issue was a Functional Failure and Should be Re-classified	September 7, 2010
CR-PLP-2010-06100	Increase in Spent Fuel Pool Liner Leakage	November 14, 2010
CR-PLP-2011-02144	Received Alarms EK-0602A and EK-0606A	April 28, 2011
CR-PLP-2011-03902	Indications of a Sheared Shaft on Service Water Pump P-7C	August 9, 2011
CR-PLP-2011-04620	Primary Coolant System Unidentified Leakage Greater Than the Technical Specification Limiting Condition for Operation	September 16, 2011
CR-PLP-2011-04822	Post 95002 Corrective Actions	March 7, 2013
CR-PLP-2011-04822	Unplanned, Automatic Reactor Trip Occurred During Maintenance on a DC Supply Panel	September 25, 2011

CR-PLP-2011-05125	ERO Staff Augmentation Test – TSC Operations Support Communicator had Not Arranged for an Alternate to Fill His Position	October 6, 2011
CR-PLP-2011-05127	ERO Staff Augmentation Test – CR Operations Support did Not Satisfactorily Respond to the Test Notification	October 6, 2011
CR-PLP-2011-05128	ERO Staff Augmentation Test – On Call I&C Electrical Engineer Determined to be on Medical Leave	October 6, 2011
CR-PLP-2011-05723	Perform Root Cause Evaluation for P-8B, Steam Driven Auxiliary Feedwater Pump, Tripping on Overspeed	October 28, 2011
CR-PLP-2011-06845	Manual Reactor Trip Due to Lowering Feedwater Suction Pressure Caused by CV-0711, Feed Pump P-1A Recirculation Valve	December 14, 2011
CR-PLP-2012-00165	PCS Leak Identified by Operating Crew	January 7, 2012
CR-PLP-2012-00188	Control Room Requested Electrical Maintenance to Investigate Reduced Amps on Group 2 Pressurizer Heaters	January 7, 2012
CR-PLP-2012-00361	Maintenance Rule Performance Criteria Exceeded for Main Feedwater System	January 16, 2012
CR-PLP-2012-00455	No Maintenance Rule Evaluation Performed for Potential Failure of ELU-175	January 19, 2012
CR-PLP-2012-00499	Personnel Contamination Event While Working in the Spent Fuel Pool Area for Dry Fuel Storage Activities	January 20, 2012
CR-PLP-2012-00665	Placekeeping Not Performed During Monthly Communications Checks	January 26, 2012
CR-PLP-2012-00728	Personnel Contamination Event While Working in the RCA to Issue M&TE	January 31, 2012
CR-PLP-2012-00774	Missed Delivery of Replacement Power Supply Boards	February 1, 2012
CR-PLP-2012-00860	Personnel Contamination Event While Performing a Peer Check for Chemistry Verifying Valve Positions During PCS Sampling	February 6, 2012
CR-PLP-2012-00861	Personnel Contamination Event While Performing Sampling PCS and SIRWT	February 6, 2012
CR-PLP-2012-00873	Fire Tours on Certain Doors Not Documented on the Fire Tour Checklist	February 6, 2012
CR-PLP-2012-00895	Trend in Personnel Contamination Events.	February 7, 2012
CR-PLP-2012-01073	During Annual Performance Exam Crew Failed to Accurately Classify the Event	February 15, 2012
CR-PLP-2012-01775	PI-1490, K-6B Starting Air Pressure Indicator for EDG 1-2 was Reading Abnormally High	March 17, 2012
CR-PLP-2012-01778	Unsatisfactory Failure Rate of New Style Diesel Generator Air Start Pressure Control Valves	March 17, 2012

CR-PLP-2012-01828	Plant Drawings in Error Concerning Breakers Operated During Temporary Modification Installation	March 20, 2012
CR-PLP-2012-02044	Operation of Primary Coolant Pumps with Inadequate Net Positive Suction Head	April 2, 2012
CR-PLP-2012-02107	Tracking CR for Correcting Configuration Errors	April 2, 2012
CR-PLP-2012-02384	Inappropriate Response to a Dose Rate Alarm	April 10, 2012
CR-PLP-2012-02725	Review of Turbine Driven AFW Maintenance that was Performed in October 2011 Revealed Discrepancies with the Work Order and Procedures	April 16, 2012
CR-PLP-2012-02730	Review of Turbine Driven AFW Maintenance that was Performed in October 2011 Revealed Procedure Quality Issues	April 16, 2012
CR-PLP-2012-02780	QA Functional Area Rating for EP is Yellow for Trimester Report Covering November 2011 through February 2012	April 17, 2012
CR-PLP-2012-02905	Thirteen Condition Reports Generated On-Site for Losing Control of Assigned Photo Badges in the Protected Area	April 19, 2012
CR-PLP-2012-03012	RPS Matrix Ladder Power Indicating Light Extinguished on Channel C RPS Cabinet	July 11, 2013
CR-PLP-2012-03229	Inappropriate Response to a Dose Rate Alarm	April 25, 2012
CR-PLP-2012-03313	Inappropriate Response to a Dose Rate Alarm	April 27, 2012
CR-PLP-2012-03761	Fatigue Assessment Not Sent to Access Authorization for Post-Event Tests	May 9, 2012
CR-PLP-2012-03782	MO-3068, Redundant HPSI Injection Valve, Would Not Move In Closed Direction	May 9, 2012
CR-PLP-2012-03873	Received Control Room Alarms for SPI Trouble, 125V DC Bus Ground, and CCW Heat Exchanger Hi-Lo Temperature Unexpectedly	May 14, 2012
CR-PLP-2012-03948	Could Not Locate Fatigue Assessment Paperwork	May 17, 2012
CR-PLP-2012-03948	Fatigue Assessments Not Performed as Required	May 17, 2012
CR-PLP-2012-04292	Two Key System Health Work Orders Moved Inside the Scope Freeze Milestone Per Engineering's Request	June 5, 2012
CR-PLP-2012-04457	Radiation Protection Technician Response to Off-hours Mobilization Drill	June 6, 2012
CR-PLP-2012-04690	Stop Work for Effluents for SIRW Tank Not Recognized	June 25, 2012
CR-PLP-2012-04885	SIRW Tank Observed Dripping in Main Control Room	July 5, 2012
CR-PLP-2012-04921	Failure of PMT of SIRWT	July 7, 2012

CR-PLP-2012-05512	CR for MO-3068, Redundant HPSI Injection Valve, Failed to Close Not Appropriately Classified	August 6, 2012
CR-PLP-2012-05832	Usable Parts Not Currently on Material Readiness List	August 22, 2012
CR-PLP-2012-05849	LPIR-0101B Pressurizer Level Pressure Channel 2 Input Channel 4 Did Not Read Correctly After Modification	August 23, 2012
CR-PLP-2012-05854	Emergency Planning CFAM Performance Indicator for Defense-in Depth Turned Red as of July PI Data	August 23, 2012
CR-PLP-2012-05893	After Replacement of New Power Supplies, “A” Channel of RPS Failed to Pass PMT	August 25, 2012
CR-PLP-2012-05894	New Power Supplies Would Not Pass PMT	August 25, 2012
CR-PLP-2012-06069	An Existing Degraded Fire Barrier is Only Marginally Acceptable	September, 2012
CR-PLP-2012-06382	Junction Box J91 Not Protected Against External Flooding	September 25, 2012
CR-PLP-2012-06404	Potential Release of Low Level Radioactive Material	September 26, 2012
CR-PLP-2012-06899	Palisades May Not Be Out of Industry Norm for Containment Work Performed Online	October 25, 2012
CR-PLP-2012-07003	Shift Managers Inaccurate EP Classifications	November 1, 2012
CR-PLP-2012-07010	RP Fundamental Techniques Not Followed	November 1, 2012
CR-PLP-2012-07047	Steam/Water Pin Hole Leak on Inlet Socket Weld Side of MV-MS526, E-50B ASDV CV-0779 Inlet Drain Valve	November 4, 2012
CR-PLP-2012-07140	Leaks That Impacted Plant Operations By Causing Shutdowns or Forced Outages	November 8, 2012
CR-PLP-2012-07348	Limited Repair of Underground Pipe Leak and Incomplete Risk Assessment of Underground Piping and Tanks	November 21, 2012
CR-PLP-2012-07351	Reductions in Source Term and CRE Ineffective	November 21, 2012
CR-PLP-2012-07430	One Member of On Duty ERO Team (TSC Security Coordinator) Did Not Respond During Quarterly Augmentation Test	November 28, 2012
CR-PLP-2012-07617	Replacement Impellers for the Primary Coolant Pump Oversized	December 7, 2012
CR-PLP-2012-07685	The Ratio of Oil Drained to Oil Added was Outside of Acceptance Criteria	December 12, 2012
CR-PLP-2013-00158	Timeliness of the Immediate Operability for the Small Steam Leak Discovered Near MV-MS526, 'B" S/G Atmospheric Steam Dump Drain Isolation	January 14, 2013

CR-PLP-2013-00422	Work Orders in “Finish” Greater Than 30 Days are Not Being Routed Back to the Technical Specification Surveillance Coordinator in a Timely Fashion	January 30, 2013
CR-PLP-2013-00460	Critical Group Re-Investigation Expired	February 1, 2013
CR-PLP-2013-00656	Entered LCO for Component Cooling Water Systems Due to Indications of a CCW Leak on E-54A, Component Cooling Water Heat Exchanger	February 14, 2013
CR-PLP-2013-01017	Changing System Software on Security Computer System Impacted the Ability to Receive Alarms	March 6, 2013
CR-PLP-2013-01023	During 2013 First ERO Staff Augmentation Test the JIC Inquiry Responder Did Not Satisfactorily Respond to the Test	March 7, 2013
CR-PLP-2013-01025	During 2013 First ERO Staff Augmentation Test the OSC Mechanical Coordinator Did Not Satisfactorily Respond to the Test	March 7, 2013
CR-PLP-2013-01026	During 2013 First ERO Staff Augmentation Test the EOF Security Coordinator Did Not Satisfactorily Respond to the Test	March 7, 2013
CR-PLP-2013-01213	Administrative Issues Identified in EC 20082 and EC 37737	March 20, 2013
CR-PLP-2013-01446	Track CR for Correcting Configuration Errors	April 1, 2013
CR-PLP-2013-01882	Preventive Maintenance Work Will Be Performed Late for CK-DMW400	April 26, 2013
CR-PLP-2013-02095	New +12 Vdc Test Power Supply Found to Adversely Affect the Alpha Channel Bistable Setpoints	May 9, 2013
CR-PLP-2013-02158	Part 21 Evaluation Not Rigorous Enough to Support Conclusions and Not Addressing All Issues Raised	May 13, 2013
CR-PLP-2013-02644	Overspeed Testing of P-8B was Not Successful with Newly Installed Parts	June 15, 2013
CR-PLP-2013-02802	Fuel Oil Transfer System Delay in Discharge Pressure Increase	June 25, 2013
CR-PLP-2013-02831	Quality Assurance Escalation on the Timeliness/Effectiveness of Correcting QA Identified Issues	June 7, 2013
CR-PLP-2013-02959	During Quarterly ERO Staff Augmentation Test a Member of the ERO Team (OSC RAD/Chem Coordinator) Did Not Respond	July 9, 2013
CR-PLP-2013-02982	Aux Feedwater AFAS-FOFF Subsystem Trip Unexpectedly	July 9, 2013
CR-PLP-2013-02982	Received Alarm EK-0137, Aux Feedwater AFAS-FOGG Subsystem Trip, Unexpectedly	July 9, 2013
CR-PLP-2013-03001	Power Supply P/S-0704 was Removed Following Failure	July 10, 2013

CR-PLP-2013-03002	FIN TEAM Electrician Did Not Complete Required Computer Based Training by Due Date	July 10, 2013
CR-PLP-2013-03025	RPS Matrix “CD” Power Indication Light Extinguished on C-06	July 11, 2013
CR-PLP-2013-03026	Power Supply P/S-CW8-15 was Removed From the RPS Following a Failure	July 11, 2013
CR-PLP-2013-03063	Received Alarm for AFAS-FOGG Subsystem Trip Unexpectedly	July 15, 2013
CR-PLP-2013-03103	Security Force Member Failed to Shoot Qualifying Score	July 17, 2013
CR-PLP-2013-03136	NRC Identified Issue – ALARA Planning for SFP Rerack Failed to Identify Alpha Level 3 Contamination	July 18, 2013
CR-PLP-2013-03137	NRC Identified Issue – Individual Working on the SFP Rerack Not Wearing a Lapel	July 18, 2013
CR-PLP-2013-03155	Missing Rifle Magazine Rounds	July 19, 2013
CR-PLP-2013-03298	Received Unexpected AFAS-FOGG Alarms	July 31, 2013
CR-PLP-2013-03523	Door 15, Equipment Room Missile Shield/Radiation Door, Was Unable to Be Closed	August 13, 2013
CR-PLP-2013-03683	Exceeded Maintenance Rule Criteria for Auxiliary Feedwater Actuation System (AFAS)	August 21, 2013
CR-PLP-2013-03838	During Third Quarter ERO Staff Augmentation Test the Designated EOF Van Buren County Liaison Failed to Respond	August 29, 2013
CR-PLP-2013-03839	During Third Quarter ERO Staff Augmentation Test the Designated TSC Reactor Engineer Provided a 45 Minute Response	August 29, 2013
CR-PLP-2013-03840	During Third Quarter ERO Staff Augmentation Test One Designated Non-traditional Radiation Protection Technic Failed to Respond to the Test	August 29, 2013
CR-PLP-2013-04246	Power Supplies Received from Vendor Had a Damaged Component	September 27, 2013
CR-PLP-2013-04391	Potential Trend in Vital Area Doors Found Unsecured	October 8, 2013
CR-PLP-2013-04405	Key System Health Work Order was Not Completed per the Schedule	October 9, 2013
CR-PLP-2013-04462	71 Licensed Operator Requalification Tasks Selected for Continuing Training Have Not Been Trained on Within Their Prescribed Frequencies	October 15, 2013
CR-PLP-2013-04802	Crack in a Turbocharger Support Weld for Emergency Diesel Generator 1-1	November 6, 2013
CR-PLP-2013-04817	Operating Experience Review Revealed Possible Secondary Fire Could Be Caused in the Cable Spreading Room By a Short in the Station Battery Room	November 7, 2013

CR-PLP-2013-05166	ALARA Planning and Controls Green Finding	December 6, 2013
CR-PLP-2013-05176	NRC Debriefed Three Green NCVs	December 8, 2013
CR-PLP-2013-05278	Potential Multiple Leak Locations Originating from the Irrigation Header Isolation Line in the Screen House	December 14, 2013
CR-PLP-2014-00022	Palisades Security SCWE Action Plan	January 1, 2014
CR-PLP-2014-00687	Electronic Dosimeter Issue	January 26, 2014
CR-PLP-2014-01193	Substantial Accumulation of Ooze, Sludge, and Bioslimes were Discovered Inside of Piping	February 8, 2014
CR-PLP-2014-01195	Missed Inspection of Opportunity	February 8, 2014
CR-PLP-2014-01359	No Materials Ordered Resulting in Delay to Perform Work Order	February 14, 2013
CR-PLP-2014-02656	Violations of EN-OM-123 Fatigue Management Program	April 19, 2014
CR-PLP-2014-02856	Installed Flexitallic Style R Gasket Had Significantly Deteriorated	May 1, 2014
CR-PLP-2014-02863	Gasket Supplied for Work was Incorrect	May 2, 2014
CR-PLP-2014-02864	Slight Over Crush of the B/B Gasket	May 2, 2014
LR-LAR-2012-00211	SIRW Tank CAL Items	August 1, 2012
WT-WTPLP-2012-00425	Ensure Electrical and I&C Supervision Periodically Discuss the Importance of 30 Min Responder Responsibilities	December 21, 2012
WT-WTPLP-2014-00022	Security SCWE Action Plan	January 15, 2014

Apparent Cause Evaluation

CR-PLP 2012-04457 HT-ACE	Insufficient Radiation Protection Technician 30 Minute Response for the Off-Hours Mobilization Drill	July 12, 2012
CR-PLP-2011-06130	Operations Human Performance Standards	December 7, 2011
CR-PLP-2012-00362	NRC Unplanned Scrams per 7,000 Critical Hours Indicator is White as a Result of Four Reactor Trips	February 14, 2012
CR-PLP-2012-01073	Annual Operator Licensing Exam EAL Classification Failures	February 15, 2012
CR-PLP-2012-01073 HT-ACE	Annual Operator Licensing Exam EAL Classification Failures	March 12, 2012
CR-PLP-2012-01482	HT Apparent Cause Evaluation Report for Chemical Control Program Cause/Corrective Action and Chemistry Department ACE Quality Issues	August 25, 2012

CR-PLP-2012-01775	Higher Tier Apparent Cause Evaluation: PI-1490, K-6B Starting Air Pressure Indicator for the Emergency Diesel Generator 1-2 was Reading Abnormally High	June 18, 2012
CR-PLP-2012-03873	Level 1 Human Performance Evaluation Review: CCW Surge Tank Fill CV Doesn't Turn On Red Light When Open (WR #271959)	May 16, 2012
CR-PLP-2012-03948	Level 2 Human Performance Error Review: Fatigue Assessment Not Performed in Post-Event Response	May 24, 2012
CR-PLP-2012-04457	Insufficient Radiation Protection Technician 30 Minute Response for the Off-Hours Mobilization Drill	July 12, 2012
CR-PLP-2012-06454	HT-Apparent Cause Evaluation Report for Maintenance Department Procedure Use and Adherence	December 5, 2012
CR-PLP-2012-07348	Lower Tier Apparent Cause Evaluation: Limited Repair of Underground Pipe Leak and Incomplete Risk Assessment of Underground Piping and Tanks	January 16, 2013
CR-PLP-2013-00460	Lower Tier Apparent Cause Evaluation: Critical Group Re-Investigation Expired	February 20, 2013
CR-PLP-2013-02982	Lower Tier Apparent Cause Evaluation: P/S-0704 Failure	April 15, 2014
CR-PLP-2013-03063	Lower Tier Apparent Cause Evaluation: Failure of AFAS Optical Isolator	August 13, 2013
CR-PLP-2013-03650	Operations OJT/TPE Practice Issues	October 15, 2013
CR-PLP-2014-00589	Level 1 Human Performance Evaluation: Security Compensatory Measures Not in Place as Required	January 26, 2014
CR-PLP-2014-02461	Equipment Apparent Cause Evaluation: E-22B; Unexpected Discovery of ID Pitting on Recently Replaced Jacket Water Heat Exchanger	May 7, 2014

Common Cause Evaluation

CR-PLP-2012-02905	Negative Trend Relating to the Control of Security Keycards in Controlled Areas	May 5, 2012
CR-PLP-2012-05861	Common Cause Analysis for Possible Emerging Trend for Procedural Compliance in Respiratory Protection.	September 17, 2012
CR-PLP-2012-07140	Palisades Leaks That Resulted In or Extended Forced Outages in June 2012 Through November 2012	December 6, 2012
CR-PLP-2013-03457	Common Cause Analysis for Cross-Cutting Aspect H.2.c, Human Performance, NRC Findings	July 28, 2013
CR-PLP-2013-03533	Unplanned Entries into TS LCO Action Statements	August 13, 2013

CR-PLP-2013-04391	Trend in Vital Area Doors Found Unsecured	December 17, 2013

Audit, Assessment, and Self-Assessments

LO-PLPLO-2011-0101	Effectiveness Reviews of RCE CR-PLP-2011-5723	November 10, 2011
LO-PLPLO-2012-00037	Snapshot Assessment of DPRMs and Coaching Quality in Radiation Protection	March 29, 2012
LO-PLPLO-2012-00051	Snapshot Assessment of Use of EAL Basis Document, and Causes of Untimely or Inaccurate EAL Classifications	May 8, 2012
LO-PLPLO-2012-00084	Effectiveness Review of CR-PLP-2012-3873 (1 Year Snapshot)	March 17, 2014
LO-PLPLO-2012-00084	Effectiveness Reviews for Root Cause Evaluation Completed Under CR-PLP-2012-3873	June 12, 2012
LO-PLPLO-2012-00106	Snapshot Assessment of Power Air Purifying Respirator Issues	September 10, 2012
LO-PLPLO-2012-00117	Snapshot Assessment - Plant Status and Configuration Control	November 3, 2012
LO-PLPLO-2012-00121	IST Program Focused Self-Assessment	May 20, 2013
LO-PLPLO-2012-00122	Electrical Work Practices	May 17, 2013
LO-PLPLO-2012-00125	Snapshot Assessment on OBJ 5 (OJT-TPE)	November 3, 2012
LO-PLPLO-2012-00169-00003	Chemistry Trending Program	January 19, 2013
LO-PLPLO-2012-00176	Perform Crew Assessment, in Accordance with EN-OP-117, Operations Assessments, of Shift 5	November 15, 2012
LO-PLPLO-2013-00015	Snapshot Self-Assessment: Fatigue Assessments Due to Post Event/For-Cause Testing	March 26, 2013
LO-PLPLO-2013-00028	Rework Program Snapshot Assessment	July 10, 2013
LO-PLPLO-2013-00042	Tendon Selection Criteria Benchmark	July 29, 2013
LO-PLPLO-2013-00069	Follow-up Snapshot Assessment for CR-PLP-2013-4462 - Some Licensed Operator Tasks Selected for Continuing Training Were not Presented Within Required Periodicity	December 12, 2013
LO-PLPPLO-2012-00003	Operations Training	January 5, 2012
LO-PLPPLO-2012-00048	Snapshot Assessment Critical Steps in Operations Procedures	May 5, 2012
LO-PLPPLO-2014-00076	Snapshot Assessment of Accredited Training	March 5, 2014

PL-PLPLO-2012-00083	5 Year Periodic Self-Assessment	November 2, 2013
QA-2012-PLP-013	Quality Assurance Surveillance Report	May 4, 2012
QA-3-2013-PLP-01	Corrective Action Program	August 1, 2013
QA-7-2013-PLP-01	Emergency Plan	July 1, 2013

Miscellaneous

10CFR50.54(q) Evaluation for Relocation of One of the Two Emergency Van to the EOF		July 26, 2012
Backshift Mobilization Drill Results Overall Response Report		June 15, 2009
CCW, DG 1-1 & 1-2 and Fire Water System Report		Various Dates
Maintenance, Operations, and Radiation Protection Safety Culture Survey		April 2014
NRC Exit Notes for RP Radiation Monitoring/Radiological Hazard Assessment/ ALARA Planning Inspection.		December 6, 2013
Palisades Condition Prescreening Meeting Package		Various Dates
Palisades Condition Review Group Meeting Package		Various Dates
Palisades Correction Action Review Board Meeting Package		May 8, 2014
Palisades ECP Informal Benchmark Report		April 2014
Palisades Maintenance Rule Periodic Assessment		October 20, 2011
Palisades Maintenance Rule Periodic Assessment		June 4, 2013
Palisades Nuclear Plant Quarterly Trend Reports		1Q2012 through 4Q2013
Palisades Security SCWE Action Plan		May 9, 2014
Palisades Self-Assessment Review Board Meeting Package		May 6, 2014
Palisades Spent Fuel Pool Leakage Trend		April 2012 – Present
Plant Health Committee Meeting Package		May 19, 2014
PLP CRG Summary Agenda Report Prescreen		May 9, 2014
Quarterly Augmentation Tests of the NRO Notification System (Everbridge)		Various
Security Work Hour Violation/Waiver Report		April 1, 2013 – May 21, 2014
BOP-UT-14-012	UT Erosion/Corrosion Examination for HB-23-4-P1836	February 19, 2014
BOP-UT-14-012	UT Erosion/Corrosion Examination for HB-23-116-P1827	February 19, 2014

BOP-UT-14-013	UT Erosion/Corrosion Examination for KB-1-P176	February 19, 2014
CR-PLP-2013-04677 HUE	Human Performance Evaluation - Supplemental RP Tech Left a Suspended Empty Fuel Rack in the SFP Unattended, Creating a Potential Locked High Radiation Area Condition	October 29, 2013
Drawing C-38	Field Erected Tanks, Sheet 2	Revision 9
Drawing C-539	Cellular Slab Repair Plan of Control Room Roof EL 643'-0"	Revision C
Drawing E-44	Lighting Panel Schedule L-35, Sheet 115A	Revision 5
EC 27632	Perform an Evaluation of Inspection Opportunities Prior to License Renewal Per Commitment LO-LAR-2009-244-38	March 17, 2011
EC 38728	Raw Water Corrosion Program Report – Operational Cycle 22 and 2012 Refueling Outage	January 14, 2014
LER 2011-004-01	Turbine-Driven Auxiliary Feedwater Pump Inoperable in Excess of Technical Specification Requirements Due to Unexpected Trip	January 31, 2012
LER 2011-005-00	Service Water Pump Shaft Coupling Failure	October 3, 2011
LER 2011-006	Valve Packing Failure Resulted in Reactor Trip and Auxiliary Feedwater System Actuation	November 10, 2011
LER 2011-007	Direct Current Electrical System Fault Causes Reactor Trip and Multiple Safety System Actuations	November 21, 2011
LER 2011-008	Reactor Protection System and Auxiliary Feedwater System Actuation	February 3, 2012
LER 2012-002-00	Technical Specification Required Shutdown Due to Un-isolable Secondary Side Drain Valve Leak	December 20, 2012
LER 2013-001	Technical Specification Required Shutdown Due to a Component Cooling Water System Leak	April 15, 2013
LER 2013-003-01	Both Control Room Ventilation Filtration Trains Declared Inoperable	October 11, 2013
LER 2013-004-00	Discovery of Latent Design Deficiency Results in Non-Compliance with 10CFR50 Appendix R	January 6, 2014
PL-ERO-NTRP010	Lesson Plan - RPT ERO Duties	Revision 0
PLLP-LOR-12B-03	Emergency Event Classification	Revision 0
PNP 2013-044	License Amendment Request to Revise Emergency Response Organization Staff Augmentation Response Times	June 25, 2013
RWP 2012-0319	Repair of CRD-24 Housing	Various Revisions
Work Order 177025	P-52C, Remove/Inspection Inboard Pump Bearing Outer Flinger	June 3, 2014
Work Order 318169	PI-1489 Indicated 238 psig	August 8, 2012
Work Order 342442	Perform Exterior Inspection of the MV-FP707, FPS Header Isolation Piping	July 13, 2013

Work Order 347562	J-91, Install Flood Barrier Within Conduits	March 27, 2014
Work Order 355289	P-18A, Troubleshoot and Correct Air In-Leakage	May 1, 2014
Work Order 356432	P/S-0704 Power Supply Failure	July 11, 2013
Work Order 362248	MV-CVC2157 Exhibiting Leak-By	June 4, 2014
Work Order 367426	K-6A, Cracked Turbo Charger Support	May 19, 2014
Work Order 51623737	P/S-0110A Aux Hot Shutdown Panel Capacitor Replacement	April 15, 2010
Work Order 52357830	CK-DMW400 Non-Intrusive Check Test	April 26, 2013
Work Order 52432007	CK-DMW400 Non-Intrusive Check Test	June 10, 2013

Operating Experience

CR-ANO-C-2007-01862	All Positions Required by Table B-1 of the ANO Emergency Plan Not Filled During an Annual ERO Staffing Drill	Dated 2007
CRG OPEX Report	Database of CRG Reviews of Operating Experience	January 2012 – May 6, 2014
CR-PLP-2007-06343	Potential Staffing Problem for the RP Department to Meet Site Emergency Plan ERO Obligations.	December 20, 2007
CR-PLP-2009-04527	Internal OE - Improper Classification of the Event During an Emergency Preparedness Drill	September 29, 2009
CR-PLP-2012-01245	IER-L2-12-14 – Automatic Reactor Scram Resulting From a Design Vulnerability in the 4.16-kV Bus Undervoltage Protection Scheme	February 23, 2012
CR-PLP-2012-01827	NRC-IN-2012-03 – Design Vulnerability in Electric Power System	March 20, 2012
CR-PLP-2012-05719	NRC-IN-2012-14 – Motor Operated Valve Inoperable Due to Stem-Disc Separation	August 16, 2012
CR-PLP-2012-05721	NRC-IN-2012-11 – Age Related Capacitor Degradation	August 6, 2012
CR-PLP-2012-07334	NRC-21-2012-48-00 – Commercial Grade Dedication Not Properly Applied to Type 9200 Butterfly Valves	November 20, 2012
CR-PLP-2013-02674	NRC-RIS-2013-05 – NRC Position on the Relationship Between General Design Criteria and Technical Specification Operability	June 17, 2013
CR-PLP-2023-01678	NRC-IN-2013-06 – Corrosion in Fire Protection Piping Due to Air and Water Interaction	April 15, 2013
eB OPEX Report	Completed OE Reviews Assigned Through eB	January 2012 – May 5, 2014
LO-PLP-2011-00338	MOV Program WT	September 15, 2011

OE-31777	External OE - Human Performance Errors Contributed to Less than Expected Emergency Response Organization Team Performance	May 26, 2010
OE-2013-000026	NRC-21-2012-55-00 – Adequacy of Design Change in AM Magne-Blast Circuitry Breakers	January 8, 2013
OE-2013-000144	NRC-IN-2013-01 – Emergency Action Level Thresholds Outside the Range of Radiation Monitors	February 26, 2013
OE-2013-000388	NRC-21-2012-55-01 – Update Report - Adequacy of Design Change in AM Magne-Blast Circuitry Breakers	June 12, 2013
OE-2013-000533	NRC-RIS-2013-09 – Guidelines for Effective Prevention and Management of System Gas Accumulation	August 23, 2013
OE-2013-000651	NRC-21-2013-50-00 – Rosemount Model 710DU Trip Units May Not Meet Established Post-Exposure Radiation Performance Criteria	September 20, 2013
OE-2013-000711	NRC-21-2013-68-00 – Interim Report – Inability to Complete 10CFR Part 21 Evaluation Regarding Cracking in KCR-13 Standby Battery Jars	December 20, 2013
OE-2014-000061	NRC-IN-2014-03 – Turbine-Driven Auxiliary Feedwater Pump Overspeed Trip Mechanism Issues	February 25, 2014

Procedures

Administrative Procedure No 4.00	Operations Organization, Responsibilities and Conduct	Revision 53
EI-16.1	Maintenance of Emergency Equipment	Revision 30
EN-DC-336	Plant Health Committee	Revision 7
EN-EC-100	Guidelines for Implementation of the Employee Concerns Program	Revision 7 Revision 8
EN-EP-305	Emergency Planning 10CFR50.54(q) Review Program	Revision 3
EN-EP-306	Drills and Exercises	Revision 5
EN-EP-310	Emergency Response Organization Notification System	Revision 2
EN-FAP-LI-001	Condition Review Group (CRG)	Revision 4
EN-FAP-LI-003	Corrective Action Review Board (CARB) Process	Revision 13
EN-HU-102	Human Performance Traps &Tools	Revision 13
EN-HU-103	Human Performance Error Reviews	Revision 7
EN-LI-100	Process Applicability Determination	Revision 15
EN-LI-102	Corrective Action Process	Revision 23

EN-LI-104	Self-Assessment and Benchmark Process	Revision 10
EN-LI-115	Apparent Cause Evaluation (ACE) Process	Revision 15
EN-LI-118	Cause Evaluation Process	Revision 17, 18, 19 and 20
EN-LI-118-06	Common Cause Analysis Evaluation	Revision 4
EN-LI-121	Trending and Performance Review Process	Revision 15
EN-MA-118	Foreign Material Exclusion	Revision 8
EN-MA-125	Troubleshooting Control of Maintenance Activities	Revision 4
EN-MA-125	Troubleshooting Control of Maintenance Activities	Revision 17
EN-NS-221	Security Department Standards and Expectations	Revision 5
EN-OE-100	Operating Experience Program	Revision 20
EN-OP-117	Operations Assessments	Revision 6
EN-RP-115	BRAC/SRMP Survey Program	Revision 0
EN-WM-107	Post-Maintenance Testing	Revision 4
FPIP-1	Fire Protection Plan, Organization and Responsibilities	Revision 22
FPSP-SO-3	Fire Suppression Water System Fire Hydrant Flush	Revision 8
FWS-M-6	Auxiliary Feedwater Turbine Maintenance	Revision 28
SEP-SW-PLP-002	Service Water and Fire Protection Inspection Program	Revision 3

Root Cause Evaluations

CR-PLP-2011-05723	Root Cause Evaluation: Auxiliary Feedwater Pump P-8B Overspeed Trip Actuation	April 23, 2012
CR-PLP-2012-03873	Root Cause Evaluation: Ground Connected to DC Circuit on CCW Tank Level Switch	August 15, 2012
CR-PLP-2012-05054	Root Cause Evaluation Report for Foreign Material Intrusion P-74, SIRWT Recirculation Pump	July 12, 2012
CR-PLP-2012-07047	Steam Leak in MV-MS526 Upstream Weld Results in Plant Shutdown	November 27, 2012
CR-PLP-2013-00885	Root Cause Evaluation Report: Main Generator Disconnect MOD 26H5 Hotspot	March 28, 2103
CR-PLP-2014-00738	Root Cause Evaluation: Unattended Pathway Leads to One Hour Reportable Safeguards Event to the NRC	February 24, 2014

LIST OF ACRONYMS

CAL	Confirmatory Action Letter
CFR	Code of Federal Regulations
DC	Direct Current
ENO	Entergy Nuclear Operation
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
SCWE	Safety Conscious Work Environment

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Sincerely,

/RA/

Eric Duncan, Chief
Branch 3
Division of Reactor Projects

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Letter to Anthony Vitale from Eric Duncan dated June 20, 2014

SUBJECT: PALISADES NUCLEAR PLANT – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000255/2014007

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