

Palisades

3Q/2014 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure for Protection against High Winds

The inspectors identified a finding of very low safety significance and an associated non-cited violation of Technical Specification (TS) 5.4.1 when licensee personnel failed to maintain and implement an adequate procedure covering Acts of Nature. Specifically, the licensee's interpretation of Abnormal Operating Procedure (AOP)–38 entry conditions resulted in a decision not to enter the procedure despite available information indicating the presence of high wind conditions in the vicinity of the plant. The licensee entered this issue into their Corrective Action Program (CAP) as CR PLP 2014 04155, NRC Questioned Entry into AOP 38, dated August 20, 2014. Planned corrective actions include a procedure revision to clarify the procedure entry conditions.

The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the preparatory actions prescribed by AOP 38 were directly related to the Initiating Events Cornerstone objective and inconsistent application of those actions in advance of high wind conditions increased the likelihood of debris induced initiating events. In accordance with IMC 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," Section B, "Transient Initiators," because the finding did not result in a reactor trip or the loss of mitigating equipment, it was determined to be of very low safety significance. This finding was associated with a cross cutting aspect of Training in the Human Performance cross cutting area. Specifically, the licensee's interpretation of procedure AOP 38 entry conditions was a result of the training provided to operators.

Inspection Report# : [2014004](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Insatallation of Steam Generator Nozzle Dams

A finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when licensee personnel failed to have an adequate procedure and work order (WO) to install steam generator nozzle dams. The licensee entered this issue in their Corrective Action Program (CAP) as Condition Report (CR) PLP-2014-00770, Improper Routing of Nozzle Dam Air Supply. As part of their corrective actions, the licensee planned to revise the nozzle dam installation procedure and the WO.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because the finding was associated with the Procedure Quality attribute of the Initiating Events cornerstone and adversely impacted the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations, and was

similar to the more than minor criteria in Example 5.a of IMC 0612, Appendix E, “Examples of Minor Issues.” As it related to this finding, the intended design of the nozzle dam air supply system was not correctly translated into the installation procedure or the work instructions. Further, the nozzle dam air system was not properly tested prior to being placed into service. Since the plant was shutdown in Mode 6, the inspectors assessed the risk significance of the event in accordance with IMC 0609, Appendix G, “Shutdown Operations Significance Determination Process.” A Phase 2 risk evaluation was required that determined the total event risk was 3.6E-8 and was therefore of very low safety significance (Green). This finding had an associated cross-cutting aspect in the Change Management (H.3) component of the Human Performance cross-cutting area. In particular, issues during the previous refueling outage led the steam generator project management team to review the configuration of the nozzle dam air system. Through this review, the licensee identified that changes to the alignment of air to the nozzle dams was required. However, due to turnover within the project management group and inadequate communications and documentation, the licensee failed to appropriately evaluate and implement those changes.

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Complete Volumetric Examinations for DM Butt Welds in Branch Connections

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50.55a(g)(6)(ii)(F)(3) when licensee personnel failed to complete required baseline volumetric examinations for nine dissimilar metal (DM) butt welds in the Primary Coolant System (PCS) that were fabricated from Inconel Alloy 82/182 weld metal and were susceptible to primary water stress corrosion cracking (PWSCC). The licensee entered this issue into their CAP as CR PLP 2014 01742, NRC Question on Whether Hot and Cold Leg Branch Connection Welds are In Scope of ASME [American Society of Mechanical Engineers] Code Case (CC) N-770-1. As part of their corrective actions, the licensee submitted a request for relief to the NRC to allow substitution of a visual and dye penetrant surface examination of these welds as an alternative to volumetric examinations. The NRC granted verbal relief on March 13, 2014, which stated the licensee could implement the proposed alternative to 10 CFR 50.55a(g)(6)(ii)(F), which included a commitment to perform enhanced leakage monitoring during the current operating cycle and perform the required volumetric examinations during the next refueling outage.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, “Issue Screening,” because the finding was associated with the Equipment Performance (Reliability) attribute of the Initiating Events cornerstone and adversely impacted the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors also determined that if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to complete volumetric examinations on the nine DM butt welded PCS branch connections fabricated with Alloy 82/182 weld metal could have allowed PWSCC susceptible material to remain in service, which could propagate and result in a Loss-of-Coolant-Accident (LOCA). The inspectors performed a Phase I Significance Determination Process screening using IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” Exhibit 1, “Initiating Events Screening Questions.” The inspectors answered the Phase I SDP “LOCA Initiators” Questions A1 and A2 ‘No’ because undetected cracks, if present, were not yet through-wall and did not challenge the structural integrity of the welds. Therefore, this finding screened as having very low safety significance (Green). This finding had an associated cross cutting aspect in the Evaluation (P.2) component of the Problem Identification and Resolution cross-cutting area because the licensee did not ensure that the resolution of the issue appropriately addressed causes and the extent of condition. Specifically, when determining the applicability of CC N 770 1, the licensee failed to thoroughly evaluate the scope of welds susceptible to PWSCC that required volumetric examination commensurate with the safety significance of this issue.

Inspection Report# : [2014002](#) (pdf)**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Introduction of Foreign Material Into the SW System

A finding of very low safety significance and an associated non-cited violation of Technical Specification (TS) 5.4.1, "Procedures," was identified by the inspectors when licensee personnel failed to follow procedure EN MA 118, "Foreign Material Exclusion (FME)," during work on the safety-related critical service water (SW) system during refueling outage (RFO) 1R23. Specifically, Sections 5.2[1] and 5.2[6] of EN-MA-118 stated that planners and procedure writers should evaluate FME considerations for work activities and include job specific FME controls in work instructions and procedures. Additionally, EN-MA-188 stated that during the planning stage, the planner should designate the FME Zone type, risk level, pathways to FME sensitive equipment, and work practice restrictions, as applicable, in all work packages. However, adequate controls were not established and documented when the decision was made to use an inflatable bladder inside the SW system when work was being performed on the system. As a result, on two separate occasions during RFO 1R23, bladders were inadvertently entrained into the return header of the SW system by the relative vacuum created by system flow. The licensee entered this issue into their CAP as CR PLP 2014 00715, Vacuum was So Great that Bladder was Ripped Off Lanyard and Lost in Piping, and CR PLP 2014 01176, FME Bladder Lost During Work Near CV-0823. As part of their corrective actions, the licensee successfully completed a comprehensive SW system test, which validated acceptable system parameters.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. In accordance with Checklist 3, "PWR [Pressurized Water Reactor] Cold Shutdown and Refueling Operation RCS [Reactor Coolant System] Open and Refueling Cavity Level < 23' Or RCS Closed and No Inventory in Pressurizer Time to Boiling < 2 hours," following the loss of the first bladder, and Checklist 4, "PWR Refueling Operation: RCS Level > 23' Or PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer," following the loss of the second bladder of Attachment 1, "Phase 1 Operational Checklists for both PWRs and BWRs [Boiling Water Reactors]," of IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," the inspectors determined that mitigation capabilities were not adversely impacted. Additionally, utilizing Table 1, "Losses of Control," of IMC 0609, Appendix G, the inspectors determined there was no loss of control. As a result, the finding screened as having very low safety significance (Green). This finding had an associated cross cutting aspect in the Work Management (H.5) component of the Human Performance cross-cutting area because the licensee did not implement a process of planning, controlling, and executing work activities such that nuclear safety was the overriding priority. In particular, the work process did not include the identification and management of risk commensurate to the work and the need for coordination with different groups or job activities.

Inspection Report# : [2014002](#) (pdf)

Mitigating Systems

Significance:  Jun 30, 2014

Identified By: NRC

Item Type: FIN Finding

Written NRC Biennial Written Examinations Did Not meet Qualitative Standards

The inspectors identified a finding of very low safety significance associated with 10 CFR 55.59, "Requalification," based on a determination that greater than 20 percent of the biennial requalification written exam questions administered to licensed operators during weeks three and five of the 2012 examination cycle were flawed. The licensee entered this issue into their Corrective Action Program (CAP) as CR PNP 2014 02521, Written Exam Quality, dated April 10, 2014.

The inspectors determined that the finding was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the finding adversely affected the quality and level of difficulty of biennial written exams, which potentially impacted Palisades' ability to appropriately evaluate licensed operators. The risk importance of this issue was evaluated using IMC 0609, Appendix I, "Licensed Operator Requalification Significance Determination Process (SDP)." The inspectors considered the number of written exam questions that did not meet the qualitative standard for written exam questions. The qualitative standards used by the inspectors are defined in NUREG 1021, Revision 9, ES 602, Attachment 1, "Guidelines for Developing Open Reference Examinations," and Appendix B, "Written Examination Guidelines." Because more than 30 percent of the questions reviewed did not satisfy the guidance, Block 4 of Appendix I applied. Based on the screening criteria, the finding was characterized by the SDP as having very low safety significance (Green) because greater than 20 percent, but less than 40 percent, of the reviewed written exam questions were flawed. A review of the cross cutting aspects was performed and no associated cross cutting aspect was identified.

Inspection Report# : [2014003](#) (*pdf*)

Significance:  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Evaluate Long-Term Scaffolds in Accordance with Procedures

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when licensee personnel failed to adequately implement procedure EN MA 133, "Control of Scaffolding." Specifically, multiple examples were identified of scaffolds installed in the plant for greater than 90 days that had not undergone process applicability determinations, were not appropriately documented in the scaffold control log, and/or did not contain proper tags. The licensee documented the issue in their CAP as CR PLP 2014 2646, Two Scaffolds Near Safety Related Equipment Not Being Controlled as Long-Term, dated April 17, 2014; conducted an extent of condition review of the entire scaffold log and identified additional discrepancies; completed the required process applicability determinations; and re inspected scaffolds that had been categorized as long term.

The inspectors determined that the performance deficiency was more than minor because it was similar to Example 4.a) of IMC 0612, Appendix E, "Examples of Minor Issues." This example described an engineering evaluation that was not performed for scaffolding erected near safety related equipment and stated that it would be a more than minor issue if the licensee routinely failed to perform the engineering evaluations. For this specific finding, there were multiple examples of process applicability determinations not being performed within the procedurally required timeframe. The finding was determined to be of very low safety significance (Green) because it did not affect the operability/functionality of structures, systems and components (SSCs) and all required safety functions were maintained. This finding was associated with the cross cutting aspect of Teamwork in the Human Performance area. Specifically, licensee and supplemental individuals and work groups did not sufficiently communicate and coordinate work activities associated with maintaining the scaffold control log or documentation related to scaffolding installed in the plant. The workers also did not understand how to account for time during refueling and forced outages when determining the long term status of scaffolds, which could have been resolved with input from other work groups

Inspection Report# : [2014003](#) (pdf)

Significance:  Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Complete a Transient Combustible Evaluation

An NRC identified finding of very low safety significance and an associated non-cited violation (NCV) of Technical Specification (TS) 5.4.1, “Procedures,” was identified by the inspectors when licensee personnel failed to complete a transient combustible evaluation as required by procedure EN DC 161, “Control of Combustibles.” Specifically, transient combustible materials in use for work activities associated with the Spent Fuel Pool Cooling Heat Exchangers were being stored in the Auxiliary Building 590’ corridor, a Level 1 Combustible Control Zone, without having a required transient combustible evaluation completed prior to (or during) the work. The licensee entered this issue into their Corrective Action Program (CAP) as Condition Report (CR) PLP-2013-04905, performed a Level 1 Human Performance Evaluation, and removed the materials after the work was completed.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Additionally, it was similar to the “not minor if” statement of Example 4.k in IMC 0612, Appendix E. This example stated that an issue was not minor if a credible fire scenario involving the identified transient combustibles could affect equipment important to safety. For this issue, transient combustible materials in use for work in progress were being stored in a Level 1 area where a fire could affect equipment important to safety, and a transient combustible evaluation had not been completed as required by licensee procedures. The finding had a cross-cutting aspect in the Work Practices component of the Human Performance cross-cutting area because workers failed to validate the combustible control zone classification of the work area during the planning and preparation phase of the project, resulting in the group not obtaining a transient combustible evaluation for the work area prior to commencing work. Contributing to this was ineffective change management communication for the newest revision to EN-DC-161, which re classified many areas of the plant into different combustible control zones.

Inspection Report# : [2013005](#) (pdf)

Significance:  Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

The Aging Effects of the Biological Shield Wall Wetted Environment Were Not Being Managed

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” when licensee personnel failed to evaluate the aging effects of the biological shield wall wetted environment. Specifically, the licensee identified seeping water from the biological shield wall on several occasions, but did not evaluate the potential aging effects on the structure concrete and rebar. This finding was entered into the licensee’s CAP as CR-PLP-2013-4041 to evaluate the potential aging effects.

The performance deficiency was determined to be more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. The finding screened as having very low safety significance (Green) because it did not result in a loss of operability or functionality. Specifically, the biological shield wall wetted environment had not resulted in the loss of functionality of the structure because recent wall visual inspection had not

identified indications of immediate structural flaws, such as significant cracks or spalling. The inspectors determined that this finding had a cross-cutting aspect in the CAP component of the Problem Identification and Resolution cross-cutting area because the licensee failed to consider the potential aging effects following the discovery of water seeping from the biological shield wall.

Inspection Report# : [2013005](#) (*pdf*)

Barrier Integrity

Significance:  Sep 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Spent Fuel Pool Region II Criticality Analysis

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when licensee personnel failed to follow procedure EN OP 104, "Operability Determination Process." Specifically, Operability Evaluation CR PLP 2013 04775 failed to include adequate technical information to support the basis for the reasonable expectation of operability, as required by Step 5.5.c of EN OP 104. On March 25, 2014, the licensee entered the NRC questions into the CAP as Assignments 6 and 7 of CR PLP 2013 04775, Issues Identified with Region II of SFP Criticality Analysis, with an initial due date of

April 8, 2014. Both Assignments 6 and 7 were ultimately closed in late April to a new Assignment 9, which was created to complete a revised Operability Evaluation. The licensee determined that contracted technical support was necessary to adequately evaluate the NRC concerns. At the end of the inspection period, the contracted evaluation effort was ongoing. Planned corrective actions included documenting the conclusions of the ongoing evaluation in a revised Operability Evaluation for CR PLP 2013 04775.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Configuration Control attribute of the Barrier Integrity Cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the Spent Fuel Pool (SFP) criticality analysis relied on certain physical conditions to maintain the effective neutron multiplication factor below 1.0, but actual physical conditions were not completely bounded by the existing criticality analysis. Because the inspectors answered 'No' to all of the SFP questions in IMC 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the finding was determined to be of very low safety significance. This finding was associated with a cross cutting aspect of Operating Experience in the Problem Identification and Resolution cross cutting area. Specifically, the licensee failed to collect and implement relevant external operating experience.

Inspection Report# : [2014004](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Procedures During Reactor Vessel Head Lift

A finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when licensee personnel failed to follow maintenance procedure RFL R 16, "Reactor Vessel Closure Head Installation." Specifically, during the reactor vessel head lift on March 5, 2014, to support reinstallation onto the vessel flange, workers failed to identify an interference with the reactor head lift structure, causing the head to impact a jack screw on the structure and increasing the total load weight

to approximately 283,000 pounds, which was greater than the procedural maximum polar crane load rating of 270,000 pounds. The licensee entered this issue into their CAP as CR-PLP-2014-01903, Reactor Head Flange Contacted Jacking Screw While Raising it Off the Head Stand. As part of their corrective actions, the licensee conducted a Level 1 Human Performance Evaluation, generated a site wide Human Performance error communication, and performed work crew stand downs to discuss crane and rigging expectations.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because the finding was associated with the Human Performance attribute of the Barrier Integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Additionally, the inspectors determined that the performance deficiency could reasonably be viewed as a precursor to a significant event and that if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the operability of the containment polar crane was required to be evaluated and the reactor vessel head was required to be inspected after the event occurred to verify no significant damage was caused and the maximum design limit of the crane could have been exceeded if the evolution was not stopped when it was, which increased the risk of dropping the head during the lift. The finding was screened in accordance with IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, "Phase 1 Operational Checklists for both PWRs and BWRs." The finding was determined to be of very low safety significance (Green) based on not requiring a quantitative assessment after reviewing the five shutdown safety functional areas in Checklist 3, "PWR Cold Shutdown and Refueling Operation RCS Open and Refueling Cavity Level < 23' Or RCS Closed and No Inventory in Pressurizer Time to Boiling <2 hours." This finding had an associated cross cutting aspect in the Challenge the Unknown (H.11) component of the Human Performance cross-cutting area. Specifically, human performance investigations identified that workers exhibited a lack of rigor when performing interference verifications prior to and during the reactor head lift, and an inadequate "stop when unsure" mentality when assessing the situation before continuing with the head lift. In addition, the workers and supervisors for this task did not understand that the load cell increase exceeded the procedural maximum value and did not inform decision makers outside of the immediate work area to validate it was safe to proceed with the evolution.

Inspection Report# : [2014002](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Significance:  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Procedure Associated with Sealed Source Inventory and Leak Testing

The inspectors identified a finding of very low safety significance and an associated non-cited violation of Technical Specification (TS) 5.4.1 for the failure to maintain a sealed source inventory and perform leak tests required by station procedures. The inspectors identified multiple discrepancies with the records that were required to be maintained to demonstrate that sealed sources stored onsite were known by the radiation protection organization, the storage locations of the sealed sources were identified, and that select sources were leak tested to prevent the spread of

radioactive contamination. This issue was entered into the licensee's CAP as CR PLP 2014 02715, Issue with Control of Sources, dated April 22, 2014.

The inspectors determined that the failure to maintain an inventory of sources onsite and leak test sources was a finding of more than minor significance because, if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, the failure to ensure that the sources were free of external contamination could spread radioactive contamination, including alpha contamination, that was not readily detectable by personnel monitoring equipment, and could result in increased exposure to radiation. The finding was assessed using the Occupational Radiation Safety SDP and was determined to be of very low safety significance (Green) because the problem was not as low as reasonably achievable (ALARA) planning issue; there was no overexposure, nor a substantial potential for an overexposure; and the licensee's ability to assess dose was not compromised. This finding was associated with the cross cutting aspect of Self Assessment in the Problem Identification and Resolution area. Specifically, the licensee did not conduct a self critical and objective assessment of the program and practice

Inspection Report# : [2014003](#) (*pdf*)

Significance:  Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Control of Entry into High Radiation Areas

The inspectors reviewed a self revealed finding of very low safety significance and an associated non-cited violation of TS 5.7.1 for unauthorized entries into high radiation areas (HRAs). Specifically, on January 30, 2014, a worker replacing lights in lower containment received an electronic dosimeter dose rate alarm. The licensee's investigation concluded that the worker was in an area that was not discussed or authorized by radiation protection staff. On February 14, 2014, a worker entered the West Engineered Safeguards Room and received an electronic dosimeter dose rate alarm. The licensee's investigation concluded that the worker was in an area that was not discussed or authorized by radiation protection staff. On both occasions, workers changed the work plans after discussing the work plans with radiation protection staff.

The inspectors determined that the performance deficiency was more than minor because it impacted the Program and Process attribute of the Occupational Radiation Safety cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that, worker entry into areas without knowledge of their radiological conditions placed them at increased risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance (Green) because the problem was not an ALARA planning issue; there was no overexposure, nor substantial potential for an overexposure; and the licensee's ability to assess dose was not compromised. This finding was associated with the cross cutting aspect of Conservative Bias in the Human Performance area. Specifically, both workers decided to change the work plans after discussing the work plans with radiation protection staff and did not stop to consider whether the new work activity or location was safe
Inspection Report# : [2014003](#) (*pdf*)

Significance:  Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Entries into High Radiation Areas without Required Dosimetry

The inspectors reviewed a self revealed finding of very low safety significance and an associated non-cited violation of TS 5.7.1 for entry into HRAs without a required monitoring device. On two separate occasions, two separate workers entered HRAs without the required dosimetry. Specifically, on February 11, 2014, a worker entered the 607'

elevation of containment and entered areas with dose rates of 320 millirem (mR)/hour. The licensee's investigation determined that the worker left the required electronic alarming dosimeter (EAD) in the dress out area. Another worker found the EAD in the dress out area and notified radiation protection staff, who located and escorted the individual from containment. On February 22, 2014, a worker entered the West Engineered Safeguards Room with dose rates of 150 mR/hour. The licensee's investigation determined that the worker left the required EAD in the dress out area. The individual identified the missing EAD when undressing to leave the room.

The inspectors determined that the performance deficiency was more than minor because it impacted the Program and Process attribute of the Occupational Radiation Safety cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that, worker entry into HRAs without alarming direct reading dosimetry placed them at increased risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance (Green) because the problem was not an ALARA planning issue; there was no overexposure, nor substantial potential for an overexposure; and the licensee's ability to assess dose was not compromised. This finding was associated with the cross cutting aspect of Avoid Complacency in the Human Performance area. Specifically, the workers did not recognize and plan for possible mistakes and did not implement appropriate error reduction tools, such as self check, to ensure they were prepared to enter the HRA
Inspection Report# : [2014003](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Maintain Radiation Exposure ALARA on CRDM 24 Repairs

A finding of very low safety significance was self revealed when workers received unplanned and unintended occupational radiation dose during a maintenance outage conducted in August 2012 due to deficiencies in the licensee's Radiological Work Planning and Work Execution Program. Specifically, the licensee failed to properly incorporate As-Low-As-Reasonably-Achievable (ALARA) strategies and insights while planning and executing Control Rod Drive Mechanism (CRDM) 24 housing work. The licensee entered this issue into their CAP as CR-PLP-2014 05812, UT [Ultrasonic Testing] Exams of the Additional CRDM Stalk Housings Has Exceeded the Dose Estimate for the RWP [Radiation Work Permit]. Corrective actions were implemented to address the outage planning and work execution issues.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because the finding was associated with the Program and Process attribute of the Occupational Radiation Safety cornerstone and adversely impacted the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Additionally, the finding was similar to the more than minor criteria in Example 6.i of IMC 0612, Appendix E, "Examples of Minor Issues." The inspectors screened this finding in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." The inspectors determined that the finding did not involve: (1) a radiological overexposure; (2) a substantial potential for an overexposure; or (3) a compromised ability to assess dose. The inspectors also determined that the finding involved ALARA planning and work controls and that the licensee's 3 year rolling collective dose average was above 135 person Rem at the time the performance deficiency occurred. However, because the work activity was a single occurrence that involved an actual dose outcome that was within the licensee's control of less than 25 person Rem, this finding was determined to be of very low safety significance (Green). This finding had an associated cross cutting aspect in the Work Management (H.5) component of Human Performance cross-cutting area because the licensee did not plan work activities that appropriately incorporated radiological safety.

Inspection Report# : [2014002](#) (*pdf*)

Significance: G Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Control of Entry into High Radiation Areas

. The inspectors identified a finding of very low safety significance and two associated NCVs of TS 5.7.1 and one associated NCV of TS 5.7.2 when on three separate occasions, three separate workers unknowingly entered areas with greater than expected dose rates. Specifically, on April 10, 2012, the radiation protection (RP) staff inappropriately authorized plant personnel to enter a locked high radiation area in the Auxiliary Building Pipechase (ABP) 602' elevation that had not been appropriately radiologically characterized prior to the entry; and on April 25, 2012, and again on April 27, 2012, workers inside the containment 607' elevation staging equipment at the 'B' steam generator (S/G) manway inappropriately traversed high radiation areas with elevated dose rates near the 'A' S/G cubicle. On both occasions, workers deviated slightly from the briefed travel paths. The licensee entered this issue into their CAP as CR-PLP-2012-03229 and CR-PLP-2012-03313, and as part of their corrective actions, shared lessons learned from this issue with the RP staff to address survey adequacy and for enhanced communications with workers during pre job briefings.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Program and Process attribute of the Occupational Radiation Safety cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation, in that, worker entry into areas without knowledge of their radiological conditions placed them at increased risk for unnecessary radiation exposure. Additionally, it was similar to the "not minor if" statement of Example 6.h in IMC 0612, Appendix E. The finding was determined to be of very low safety significance because the problem was not an as low as reasonably achievable (ALARA) planning issue, there was no overexposure nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The finding had a cross-cutting aspect in the Work Practices component of the Human Performance cross-cutting area because the licensee failed to define and clearly communicate expectations regarding procedural compliance and ensure that personnel followed procedures.

Inspection Report# : [2013005](#) (*pdf*)

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Significance:  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Exam Security Issues

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 55.49, "Integrity of Examinations and Tests," which stated, "Applicants, licensees, and facility licensees shall not engage in any activity that compromises the integrity of any application, test, or examination required by this part." Specifically, Palisades placed personnel in the simulator operating booth that were not identified in the security agreement, placed the scenario turnover sheet for a second scenario in the simulator during the first scenario, and left a job performance measure turnover sheet in the simulator after the applicant left the simulator and brought the next applicant into the simulator. This issue was entered into the licensee's CAP as CR PLP 2014 02533, Issues Were Identified During the Annual Exam Administered on April 10, 2014, dated April 10, 2014.

The performance deficiency was determined to be more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern. Specifically, the failure to properly control operational examination material in a manner in which applicants were not prematurely exposed to the material provided opportunities to compromise the examination. The finding was screened as one of very low safety significance (Green) in accordance with IMC 0609, Appendix I, "Licensed Operator Requalification SDP." This finding was associated with the cross cutting aspect of Procedure Adherence in the Human Performance area (H.8).

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Significance: N/A Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Notify the NRC Within 30 Days of Discovering Changes in Medical Conditions

A Severity Level IV non-cited violation of 10 CFR 50.74, "Notification of Change in Operator or Senior Operator Status," was identified by the inspectors during a review of licensed operator medical records. Specifically, Palisades did not notify the NRC within 30 days of discovering a change in medical condition for a licensed operator.

Subsequently, the licensee submitted the required notification for the operator on

April 11, 2014, and entered the issue into their CAP as CR PLP 2014 02518, NRC Informed the Palisades Training Department that an NRC Form 396 was Not Submitted, dated April 10, 2014.

The inspectors determined that Traditional Enforcement applied because a failure to make a required report impacted the regulatory process. Specifically, the licensee had not notified the NRC within 30 days of learning of a change in medical condition for a licensed operator for which a license condition was required. Based on Example 6.9.d.1 of the NRC's Enforcement Policy, the inspectors determined that the issue represented a Severity Level IV violation. No associated Reactor Oversight Process finding was identified, thus there was no associated cross-cutting aspect.

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Last modified : November 26, 2014