

Palisades

3Q/2010 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure Code Requirements Met When Performing VT-2 Exams

The inspectors identified a finding of very low safety significance (Green) and associated NCV of Technical Specification (TS) 5.4.1, Procedures, for the failure to ensure that American Society of Mechanical Engineers (ASME) Code and site procedural requirements were understood and incorporated during the performance of VT 2 in service inspections. Specifically, the illumination requirements specified in the Code had not been properly incorporated into all site examination procedures, nor were Operations personnel aware of the specific requirements. The licensee disseminated guidance clarifying the requirements and entered the issue into corrective action program (CAP) as CR PLP 2010 03756.

The issue was more than minor because it adversely affected the Equipment Performance attribute of the Initiating Events cornerstone, whose objective is to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, VT 2 exams performed without fundamental knowledge of Code and procedural requirements could lead to erroneous examination results. The finding screened as Green because no known actual component degradation went undetected as a result of improperly performed exams. The finding had an associated cross cutting aspect in the area of Human Performance (Procedures), in that the licensee failed to have complete, accurate, and up to date procedures and work packages for the VT 2 examinations.

Inspection Report# : [2010004](#) (*pdf*)

Significance:  Sep 17, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Corrective Action to Prevent Recurrence Failed to Address Root Causes

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of Palisades Technical Specification 5.4.1, "Procedures." Specifically, the licensee's procedure for the performance of root cause analysis required the issuance of a Corrective Action to Prevent Recurrence (CAPR) to address each identified root cause and the licensee's only CAPR failed to address the root causes identified by the licensee. This issue was entered into the licensee's corrective action program as CR-PLP-2010-03976.

The inspectors concluded the finding was more than minor because, if left uncorrected, it would become a more significant safety concern; specifically, the finding impacted the adequate corrective action to prevent recurrence of an event that impacted the Initiating Event Cornerstone objective of limiting events that challenge safety functions; for example, preventing criticality in an area not designed for criticality. Because probabilistic risk assessment tools were not suited for the original White finding, the inspectors had evaluated the White finding using IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." Based on the degradation that resulted in a significant loss of margin to criticality, NRC management concluded the original finding was of low to moderate safety significance (White). This violation is of very low safety-significance because other corrective actions taken by the licensee in response to additional NRC findings have been adequate to prevent recurrence. Because this violation was of very low safety-significance, neither was it repetitive nor willful, and was entered into the licensee's corrective action program the violation is being treated as an NCV, consistent with the NRC Enforcement Policy. The inspectors determined that the finding had an associated cross-cutting aspect in the area of Problem Identification and Resolution under the Corrective Action Program Component because the corrective actions issued for the identified root causes failed to address the identified root causes. Specifically, the licensee did not have a CAPR that addressed each of the identified root causes. (P.1(c))

Significance: **W** Nov 09, 2009

Identified By: NRC

Item Type: VIO Violation

Loss of Spent Fuel Pool Neutron Absorption Capability

The inspectors identified a finding and associated violation of the Design Feature for fuel storage in Technical Specification 4.3.1 due to loss of neutron absorption capability in the spent fuel pool (SFP) racks. Over the life of the facility, the neutron absorber in the SFP had degraded such that the Region I of the SFP could no longer maintain an effective neutron multiplication factor (Keff) of less than .95 without credit for soluble boron. Specifically, the licensee did not evaluate the effects of spent fuel pool rack swelling or available operating experience to validate the neutron absorber in the SFP continued to meet the assumptions in the criticality analysis. After testing revealed that the SFP no longer met assumptions in the criticality analysis, the licensee implemented compensatory actions to ensure the SFP remained subcritical.

The inspectors concluded the finding was more than minor because, if left uncorrected, it would become a more significant safety concern; in addition, the finding impacted the initiating event cornerstone objective of limiting events that challenge safety functions; for example, preventing criticality in an area not designed for criticality. Because probabilistic risk assessment tools were not suited for this finding, the inspectors evaluated the finding using IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." Based on the degradation that resulted in a significant loss of margin to criticality, NRC management concluded the finding was preliminarily of low to moderate safety significance (White). The inspectors determined that the performance deficiency did not reflect current licensee performance due to its age; therefore, the finding does not include a cross-cutting aspect.

Final WHITE determination issued in report 2010-007 dated January 20, 2010.

Inspection Report# : [2009008](#) (pdf)

Inspection Report# : [2010007](#) (pdf)

Inspection Report# : [2010009](#) (pdf)

Mitigating Systems

Significance: **G** Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Adequate Risk Assessment for Maintenance Activities

The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR 50.65 a(4) for failing to properly assess and manage the risk associated with the removal of the auxiliary feedwater (AFW) pump room floor plug during emergent maintenance activities. Specifically, the impact of the floor plug was not considered in the risk assessment and licensee personnel were unaware of resources needed to restore configuration. The performance deficiency was identified after the floor plug had been reinstalled. Prior to the next maintenance activity involving floor plugs, the licensee ensured appropriate actions were taken in accordance with their procedures. The issue was entered into the licensee's CAP as CR PLP 2010 03434.

The issue was more than minor because it adversely affected the Protection from External Factors attribute of the Mitigating Systems cornerstone, whose objective is to ensure the availability, reliability, and capability of systems that respond to initiating events. Additionally, the inspectors compared the issue to examples in IMC 0612 Appendix E, and concluded it was similar to example 7.e. for more than minor in that the risk assessment was not adequate for a situation where licensee procedures required risk management actions to be taken to address plant configuration. Specifically, the licensee did not perform a risk assessment for removal of the AFW pump room floor plug and did not establish adequate risk management actions to reinstall it in the event of flooding. The finding screened as Green based on an evaluation performed by a Senior Risk Analyst (SRA) using IMC 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," with a bounding risk evaluation which estimated a relatively low increase in risk for the given configuration. The finding had an associated cross cutting aspect in the area of Human

Performance (Resources) in that the licensee failed to provide complete, accurate, and up to date procedures that are adequate to ensure nuclear safety.

Inspection Report# : [2010004](#) (pdf)

Significance: G Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Complete Actions Required by LCO 3.0.3 and 3.3.1

The inspectors identified a finding of very low safety significance (Green) and associated NCV of TS 3.3.1 and 3.0.3 for failure to comply with required TS actions. Specifically, on August 23, the licensee lost the automatic Loss of Load Trip but neither placed a trip unit in trip nor placed the plant in Mode 3 as required by TS 3.3.1 and TS 3.0.3 respectively. The licensee has restored the Loss of Load trip to operable status and entered the issue into the CAP as CR PLP 2010 03579.

The inspectors concluded that this issue was more than minor because it adversely affected the Mitigating System Cornerstone objective of ensuring the availability of systems that respond to initiating events. In addition, the inspectors reviewed IMC 0612 Appendix E and determined the issue was not similar to those items listed. The inspectors used IMC 0609 Attachment 4, Phase 1 screening, and discussed the issue with the regional SRA. The inspectors determined that the finding was of very low safety significance, Green, since the Reactor Protection System Safety Function was not lost. The finding had an associated cross cutting aspect in the area of Human Performance (Decision Making) in that the licensee failed to verify the validity of underlying assumptions.

Inspection Report# : [2010004](#) (pdf)

Significance: SL-IV Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Make an 8 Hour Report Pursuant to 10 CFR 50.72

The inspectors identified an NCV for failure to make an 8 hour report as required by 10 CFR 50.72. On August 23, the licensee lost the trip function associated with the Loss of Turbine Load but did not recognize that this condition was a loss of a safety function and reportable within 8 hours as required by 10 CFR 50.72. After discussions with the residents, the licensee reported the condition pursuant to 10 CFR 50.72. The licensee entered this condition into the CAP as CR PLP 2010 3752.

The inspectors concluded that the issue was more than minor because the failure to make the required report impacted the regulatory process. The finding affected the Mitigating System Cornerstone because the intent of the reporting is to capture events where there would have been failure of a safety system to properly operate. The Finding was processed through the traditional enforcement process. The inspectors concluded that the finding was of SL IV because failure to make a required 10 CFR 50.72 report is an example of a SL IV violation in the Enforcement Policy. The underlying cause of this issue is the same as the Green NCV listed in 1R15 so no additional cross-cutting aspect was assigned.

Inspection Report# : [2010004](#) (pdf)

Significance: G Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Ground on Preferred AC Bus Due to Improperly Installed electrical Bushing

The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR 50 Appendix B, Criterion V for failure to accomplish activities affecting quality as prescribed by the documented instructions, procedures, or drawings. Specifically, the licensee replaced a solenoid valve on a safety related chiller in a manner that permitted a ground to develop on a preferred electrical bus after two years of operations. The licensee repaired the solenoid valve and entered the issue into the CAP as CR PLP 2010 03234.

The issue was more than minor because it adversely affected the Equipment Performance attribute of the Mitigating Systems Cornerstone, whose objective is to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the ground reduced the reliability of the

associated safety related electrical bus. Further, correction of the ground rendered the control room Heating, Ventilation and Air Conditioning (HVAC) chiller inoperable. The finding screened as Green because there was no loss of system safety function. The licensee determined the cause to be an improperly tightened electrical bushing, and that the proper tightening of bushings was part of electrical maintenance training. Therefore, human error prevention techniques used by the craft during assembly were not sufficient to preclude the bushing from being improperly tightened.

Inspection Report# : [2010004](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Fire Barrier

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of License Section 2.C(3), Fire Protection Program for failing to maintain in effect all provisions of the Fire Protection Program. Specifically, the fire protection plan requires 3-hour fire barriers, unless there is adequate justification that a fire barrier, which is less than 3 hours is acceptable. The licensee credited a 2-hour fire barrier in lieu of a 3-hour barrier based on less than two hours of combustible material in the cable spreading room. In 2006, the licensee determined the cable spreading room contained in excess of two hours worth of combustible material. As an immediate action, the licensee implemented compensatory actions and performed fire tours in the area.

The issue is more than minor because it affects the Protection Against External Events attribute of the Mitigating Systems Cornerstone in that it affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. Specifically, the licensee had an invalid basis for the adequacy of a firewall protecting safety related equipment. The finding screened as Green because the fire barrier retained at least a two hour rating and the seismic issues did not impact both trains. The finding does not include an associated cross cutting aspect due to the issue dating back greater than three years and not reflective of current performance. (1R05)
Inspection Report# : [2010002](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Improper Construction of Scaffolding

A finding of very low safety significance (Green) and associated NCV of Palisades Technical Specification (TS) 5.4.1, Procedures, was identified by the inspectors for failing to adequately implement a procedure to construct a scaffold near the 1 2 emergency diesel generator (EDG). Specifically, a fire sprinkler was impaired without the proper fire protection evaluation; and required seismic evaluations were not performed despite being in close proximity to safety related equipment. The issue was entered into the licensee's corrective action program and the scaffold was modified.

The issue is more than minor because it affects the Protection Against External Events attribute of the Mitigating Systems Cornerstone in that it affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. Specifically a fire protection feature (sprinkler) in a safety related area was affected without compensatory measures. Additionally, the scaffold was in close proximity to safety related equipment, and the equipment could have been impacted by a seismic event. The finding screened as Green based on remaining sprinkler capability and the fact that only one EDG could be affected by the scaffold during a seismic event. The finding had an associated cross cutting aspect in the area of Human Performance (Planning) in that the licensee failed to appropriately plan work activities by incorporating the need for compensatory actions (H.3(a)). (1R05)

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Dec 16, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Agastat Time Delay Relays Design, Testing and Configuration Control Issues

A finding of very low safety-significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III “Design Control,” was identified by the inspectors for the licensee’s failure to translate the design bases into design drawings, procedures and appropriate test instructions. Specifically, the design basis requirements for Agastat Time Delay Relays (TDR) settings, as well as vendor tolerances, were not accurately reflected in the design drawings, procedures and test instructions for numerous TDR calibrations. This issue was entered into the licensee’s corrective action program.

The inspectors determined that the finding was more than minor because it was associated with the Mitigating System Cornerstone attribute of “Design Control,” and affected the cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, failure to ensure that safety-related TDRs would operate, within the design specified setpoints and allowed tolerances, could lead to the inability of safety-related systems and components to respond to design basis events (e.g., during load sequencing onto the EDG). The finding screened as being of very low safety-significance because the finding was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee’s subsequent evaluation of the TDRs tolerances showed that available margin remained for satisfactory completion of the required safety function.

This finding has an associated cross-cutting aspect in the area of problem identification and resolution because the licensee did not incorporate operating experience (OE) information, including internally generated lessons learned, to support plant safety. Specifically, even though the licensee was aware of the potential inadequacies of the Agastat TDR setpoints through internal OE, the licensee failed to adequately respond to the OE by implementing appropriate changes to station processes, procedures, equipment, and training program.

Inspection Report# : [2009006](#) (pdf)

Significance:  Dec 16, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Translate the Design Basis for the CV-11 Control Room HVAC Chiller Into Specifications and Drawings

A finding of very low safety-significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was identified by the inspectors for the licensee’s failure to translate and incorporate design basis criteria that ensured the functionality of TDRs for the CR HVAC chillers into design drawings, procedures and work instructions for implementation. Specifically, even though the licensee reduced the replacement interval frequency for the chiller mounted TDRs due to high vibration levels to ensure functionality, and then initiated Work Orders (WOs) to perform this replacement, one WO was closed without replacing the TDRs as intended, and the second WO was not approved for implementation. This issue was entered into the licensee’s corrective action program.

The inspectors determined that the finding was more than minor because this failure to establish measures to translate and incorporate design basis criteria to ensure the functionality of TDRs for the CR HVAC chillers could lead to the inability of the chillers to respond to design basis events. Specifically, the finding screened as of very low safety-significance (Green) because the finding did not represent loss of system safety function.

This finding has an associated cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate problems such as that the resolution addresses causes and extent of condition, as necessary. This includes properly evaluating for operability conditions adverse to quality.

Inspection Report# : [2009006](#) (pdf)

Barrier Integrity

Emergency Preparedness

Significance:  Mar 05, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Evaluation of Interface with State and Local Governments

The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR 50.54(t), "Conditions of licenses," for the failure to complete an independent review of all program elements of the emergency preparedness program. The independent assessment did not evaluate and document the adequacy of the interfaces with State and local governments at an interval not to exceed 12 months for all groups. Specifically, Quality Assurance's assessment failed to evaluate the adequacy of interface with one of the counties in 2008, and the interface with the State and two counties was not evaluated in 2009. The licensee entered the issue in their corrective action program as CR-PLP-2009-04915.

The deficiency did not meet the criteria for traditional enforcement, therefore, was screened using the Emergency Preparedness (EP) SDP. The finding was determined to be more than minor because the finding adversely affected the EP cornerstone objective to ensure the licensee is capable of implementing adequate measures to protect the health and safety of the public in a radiological emergency. The failure to conduct the audit to evaluate the effectiveness of the EP program had the attribute associated with Offsite EP, specifically, the evaluation of the working relationship between the offsite and onsite emergency response organizations and programs. The inspector evaluated the finding using with IMC 0609, Appendix B, Sheet I, Failure to Comply flowchart. The audit program was noncompliant with a regulatory requirement not involving an EP planning standard or a risk significant planning standard; therefore, the finding was determined to be of very low safety significance (Green).

The finding has a cross-cutting component in the Problem Identification and Resolution area with the component of Self and Independent Assessments. The licensee did not conduct the self-assessments in sufficient depth to evaluate the interfaces for all offsite governments. (P.3(a)) (Section 1EP5)

Inspection Report# : [2010502](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately manage Changes to the ODCM

The inspectors identified a finding of very low-safety-significance and an associated NCV for the failure to implement TS requirement 5.5.1, Offsite Dose Calculation Manual (ODCM). Specifically, the inspectors determined that the evaluation written to support the 2004 change to eliminate drinking water well sampling from the ODCM was not correct. This evaluation failed to address community wells that provide drinking water to homes immediately adjacent to plant property to the south. These community wells are between the plant site and the Covert Township Park. These locations were drinking water wells that were historically sampled until the 2004 ODCM change. Corrective actions were being developed in the corrective action program (condition report (CR) PLP 2010 01013) and senior plant management expressed the understanding that sampling was important and the condition would be corrected.

The finding was more than minor because it affected the Public Radiation Safety Cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain, in that these conditions could result in reduced capability to detect potential impacts associated with this pathway. The finding was assessed using IMC 0609, Attachment D for the Public Radiation Safety SDP and determined to be of very low safety significance because it involved the environmental monitoring program. The finding was not associated with a cross cutting aspect because the flawed evaluation occurred in 2004 and appeared to be a legacy issue which did not represent current licensee performance. (Section 4OA5)

Inspection Report# : [2010002](#) (*pdf*)

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : November 29, 2010