Point Beach 1
2Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure To Incorporate Industry Operating Experience Into Preventive Maintenance Programs For Nuclear Instrumentation
A finding of very low safety significance and associated non-cited violation of 10 CFR 50.65(a)(3) was self-revealed when an unplanned reactor trip of Unit 2 occurred on June 13, 2011, as a result of the failure of a source range detector during low power physics testing. Specifically, the licensee failed to adequately evaluate operating experience and incorporate it into its preventive maintenance program to periodically replace aging electrical subcomponents in nuclear instrumentation systems and a subsequent age related failure resulted in initiating a plant transient. The licensee entered this issue into the corrective action program, and corrective actions to prevent recurrence were initiated.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance. Specifically, the availability and reliability of the nuclear instruments was degraded to a point where an instrument failure caused a reactor trip, an event that adversely impacted the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding has a cross-cutting aspect in the area of corrective action program, evaluation/extent of condition. Specifically, the licensee failed to thoroughly evaluate related nuclear instrument failure rates so that the resolutions addressed the causes and extent of conditions for age-related failures of electrical subcomponents. (Section 4OA3.4)
Inspection Report# : 2012003 *(pdf)*

Significance: G Sep 02, 2011
Identified By: NRC
Item Type: FIN Finding
Turbine Building Structural Steel Floor Beams Did Not Meet AISC Requirements
. The inspectors identified a finding of very low safety significance involving the licensee’s failure to meet the requirements of the American Institute of Steel Construction (AISC) Specification. Specifically, the licensee’s design basis calculation failed to ensure the turbine building structural steel floor beams met the AISC specification. This finding was entered into the licensee’s corrective action program. No violation of NRC requirements was identified.

The performance deficiency was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of design control and adversely affected the cornerstone objective to limit the likelihood of those events that upset the plant’s stability and challenged critical safety functions during shutdown, as well as power operations. The finding screened as very low safety significance (Green), because the transient initiator would not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding had a cross-cutting aspect in human performance and work practice because the licensee did not ensure effective supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported. Specifically, the licensee failed to have adequate oversight of design calculation and documentation for establishing structural adequacy of the turbine building structural steel beams at EL. 44’-0.” [H.2(c)] (Section 4OA5.1.b.(2))
Inspection Report# : 2011009 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Establish Emergency Diesel Generator Ventilation System Testing
The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to establish routine testing procedure that demonstrated room temperatures would be maintained. Specifically, on March 29, 2012, the inspectors identified that the licensee failed to establish routine testing procedure that demonstrated the air flows for emergency diesel generators G-01 and G-02 ventilation systems would perform adequately to ensure that the room temperatures would be maintained. The licensee entered this issue into its corrective action program, and corrective actions included performance of air flow measurements on the fan units, creation of a preventive maintenance requirement for taking periodic flow measurements, and assessment of the identified issue through a condition evaluation.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, Appendix B, “Issue Screening,” dated December 24, 2009. The inspectors determined that this finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute for design control. Specifically, it adversely affected the Mitigating System Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of human performance, decision making. Specifically, the licensee did not use conservative assumptions regarding the verification of the proper air flow through the safety related gravity dampers in the emergency diesel generators G-01 and G-02 rooms. (Section 1R19)
Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Perform Operability Evaluations As Required By Procedure
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,” for the licensee’s failure to perform an operability evaluation of the impact of door deficiencies on their ability to function as a high energy line break (HELB) barrier, fire (safe shutdown) door, and flood barrier. Specifically, the inspectors identified condition reports written between December 13, 2011, and March 8, 2012, for degraded doors credited as HELB barriers, safe shutdown doors, and flood barriers; however, the licensee failed to perform an operability evaluation of the conditions as required by plant procedures. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because, if left uncorrected, the failure to perform operability evaluations and recognize conditions that could render equipment inoperable could lead to a more significant safety concern. The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action, because the licensee failed to take appropriate action to address safety issues and adverse trends in a timely manner. Although the licensee had previously recognized this and initiated training to correct the knowledge based aspects of the issue, there were no interim barriers in place during the long duration needed to complete the training activity. (P.1(d))
Inspection Report# : 2012002 *(pdf)*

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Disposition A Pipe Support In Accordance With ASME Code
The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR

50.55a(g)(4) for the licensee's failure earlier in 2011 to accept for continued service, by correction, or evaluation or test, a safety injection (SI) system support (SI-1501R-2 H1) whose examination detected a condition unacceptable (improper hot and/or cold setting) for continued service in accordance with American Society of Mechanical Engineers (ASME) Section XI Code. The licensee, having instead incorrectly dispositioned the condition with a system operability screening, subsequently completed an analysis to confirm that the support was operable with this configuration and entered this issue into its corrective action program.

This finding was of more than minor significance because the licensee routinely failed to perform evaluations on similar issues. The failure to confirm the ability of this support to carry design loads as required by ASME Section XI Code prior to returning it to service, increased the likelihood of a component failure and adversely affected the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was of very low safety significance based on answering “No” to the Phase I screening question identified in the Mitigating Systems column of Table 4a in Inspection Manual Chapter, Attachment 0609.04 “Phase I Initial Screening and Characterization of Findings.” The finding has a cross-cutting aspect in the area of human performance, resources, because the licensee’s training was not adequate and failed to direct personnel to disposition an unacceptable condition in accordance with the requirements of the ASME Section XI Code.

Inspection Report# : 2011005 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Perform An Operability Evaluation For Rod Drive Control System Failures
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,” for the licensee’s failure to perform an operability evaluation as required by procedure when degraded/non conforming conditions were identified during a surveillance of the rod drive control system. Specifically, on December 10, 2010, the licensee documented rod trouble alarms in condition report 01401564, but did not identify the degraded/non conforming condition or evaluate the condition relative to support functions for technical specifications (TSs) 3.1.4 and 3.1.6. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure to identify the degraded/non conforming condition and assess the impact on operations and TS requirements resulted in latent conditions that had the potential to be of greater safety significance, and in this case resulted in the failure to evaluate the degraded/non conforming condition relative to TSs 3.1.4 and 3.1.6. This finding has a cross-cutting aspect in the area of human performance, decision-making, because the licensee did not use conservative assumptions during related decision making that adopted a requirement to demonstrate that the proposed action was safe in order to proceed (H.1(b)).

Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Ensure Tornado Missile Protection For EDGs G01 And G02 Exhaust Stacks
The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” involving the licensee’s failure to ensure tornado missile protection for two of the emergency diesel generator (EDG) exhaust stacks, which were considered Class I components. The licensee entered this issue into the Corrective Action Program as AR 01678709.

The licensee's failure to ensure tornado missile protection for EDGs G01 and G02 exhaust stacks was a performance deficiency. The performance deficiency was determined to be more than minor because there was reasonable doubt the EDG exhaust stacks would remain functional to support EDG operation in the event tornado-induced missiles damaged the exhaust stacks The finding screened as very low safety significance because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding was determined not to have a cross-cutting aspect.

Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 02, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Monitor Outside Air Temperature
The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to correctly translate design basis assumptions into procedures or instructions. Specifically, the licensee failed to monitor average outside air temperature which was one of the design input criteria for the temperature heat-up calculation associated with rooms which housed safety-related equipment. This finding was entered into the licensee's corrective action program.

The performance deficiency was associated with Mitigating System Cornerstone and determined to be more than minor because, if left uncorrected, it could lead to a more significant safety concern. The finding screened as very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding had a cross-cutting aspect in the area of human performance, resources because the licensee did not ensure adequate training and qualification of personnel. Specifically, the licensee failed to adequately train licensed operators to ensure adequate knowledge with respect to the interface between functionality of a non-safety system component and the impact of a failure on the operability of safety-related equipment. [H.2(b)]. (Section 1R21.3.b.(1))
Inspection Report# : 2011009 *(pdf)*

Significance: G Sep 02, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Incorporate Minimum AFW Flow Requirement Into Emergency Procedures
The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure a minimum AFW flow of 275 gpm as specified in the accident analysis for the Loss of Normal Feedwater event. This finding was entered into the licensee's corrective action program.

The performance deficiency was associated with the Mitigating Systems Cornerstone attribute of design control and was determined to be more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, an AFW flow rate of less than 275 gpm as specified in the procedures did not ensure the pressurizer would not become water solid and cause an over-pressure condition within the Reactor Coolant System during the Loss of Normal Feedwater. The finding screened as of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of human performance, resources because the licensee did not maintain design documentation in a complete and accurate manner. Specifically, the licensee failed to maintain Emergency Procedures consistent with the design basis analysis for LONF. [H.2(c)]. (Section 1R21.6.b.(1))
Inspection Report# : 2011009 *(pdf)*

Barrier Integrity

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Construction Interferes With The Operation Of Containment Spray Suction Valve
A finding of very low safety significance and a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," were self revealed during the preparation for surveillance testing when the licensee failed to implement existing procedural guidance for the control of clearances between installed scaffolding and plant equipment. Specifically, scaffolding was constructed too close to the Unit 2 containment spray suction isolation valve from the residual heat removal (RHR) heat exchanger interfering with the operation of the valve. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Barrier Integrity Cornerstone attribute of structures, systems, and components, and barrier performance, and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers, specifically the containment, would be able to protect the public from radionuclide releases caused by accidents or events. The finding has a cross-cutting aspect in the area of problem identification and resolution, trending, because the licensee did not assess information from the corrective action program in the aggregate to identify programmatic and common cause problems. Specifically, the licensee had identified similar issues of sufficient importance and quantity that if trended, had the potential to preclude the event. (P.1(b))
Inspection Report# : 2012002 *(pdf)*

Significance: G Sep 02, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Containment Spray Pipe Support Deficiencies
The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to ensure the Containment Spray Pipe Support 2S-249 and Containment Spray Pipe Anchor 2A-35 meet Seismic Category I requirements. This finding was entered into the licensee's corrective action program.

The performance deficiency was determined to be more than minor because it was associated with the Barrier Integrity Cornerstone attribute of design control and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. This finding is of very low safety significance (Green) because there was no actual barrier degradation. The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue; and therefore, was not reflective of current performance. (Section 4OA5.1.b.(1))
Inspection Report# : 2011009 *(pdf)*

Emergency Preparedness

Significance: W Apr 20, 2012
Identified By: NRC
Item Type: AV Apparent Violation
Protective Action Recommendation Weakness
An NRC identified finding with a preliminary low to moderate safety significance and one associated apparent violation of 10 CFR 50.47(b)(10) for failure to develop and put into place guidelines for the choice of protective

actions during an emergency that were consistent with Federal guidance. Federal guidance for the choice of protective actions during an emergency is described in EPA 400 R 92 001, and states, in part, that withdrawal of protective actions from areas where they have already been implemented is usually not advisable during the early phase because of the potential for confusion and possibly impede implementation of protective actions which could place the public at additional risk. Additionally, Federal guidance described in NUREG 0654/FEMA REP 1, Supplement 3, states, in part, licensees should not relax protective actions until the source of the threat is under control. In the case of a known impediment to evacuation, the licensee's emergency implementing procedure, EPIP 1.3, "Dose Assessment and Protective Action Recommendations," incorrectly directed key decision makers to withdraw protective actions to evacuate the public and replace it with a recommendation to shelter the public. After the NRC identified the finding, the licensee immediately revised its emergency implementing procedure to be consistent with Federal guidance.

This finding is more than minor because it affected the Emergency Preparedness Cornerstone objective of implementing adequate measures to protect the health and safety of the public during a radiological emergency, and is associated with the cornerstone attributes of emergency response organization performance and procedure quality. Specifically, the withdrawal of implemented protective actions could cause confusion of offsite authorities and the public. The inspectors evaluated the finding using the SDP and determined this finding screened as preliminarily White. The finding has a cross cutting aspect in the area of Human Performance, Resources, because the licensee failed to maintain complete, accurate, and up to date procedures as early as 2003 when the licensee returned sheltering to its range of protective action recommendation emergency plans and procedures.

Inspection Report# : 2012503 *(pdf)*

Occupational Radiation Safety

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Compliance With 10 CFR 20.1701 To Control The Concentration Of Radioactive Material In Air And Ensure That Radiological Airborne Hazards Would Be Minimized In TSC During Design-Based Accident
The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 20.1701. Specifically, the inspectors identified deficiencies, as of January 19, 2012, in the licensee's testing program for assuring that the technical support center (TSC) ventilation system was in compliance with the system's design basis. The licensee's TSC high efficiency particulate air and charcoal filter efficiencies were not tested to the design criteria. The licensee documented this issue in its corrective action program and the corrective actions included revising applicable procedures. In addition, the licensee performed a calculation to show
that the TSC ventilation system was capable of maintaining a radiological habitability of less than 5 Rem total effective dose equivalent for the duration of the design base accidents. The calculation was based on actual historical filter testing efficiencies.

The finding was more than minor because it was associated with the program and process attribute of exposure control of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure radiation and radioactive material. Specifically, inappropriately testing installed emergency ventilation system filters designed to mitigate workers' radiation exposures did not validate that the TSC ventilation system was capable of performing its intended design function of minimizing worker exposures to airborne radioactive materials. The finding was assessed using the occupational radiation safety significance determination process and was determined to be of very
low safety significance (Green) because it was not an as-low-as-is-reasonable-achievable planning issue, there was no overexposure or potential for overexposure, and the licensee's ability to assess dose was not compromised. The inspectors determined that the most significant contributor to the finding was a cross-cutting aspect in the area of human performance, resources. Specifically, the licensee failed to ensure that the TSC ventilation filter testing protocol assured compliance to the system's designed margins. (Section 2RS3)
Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Determining An Individual's Dose Of Record With Discrepant TLD/ED Data Inputs
The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 20.1201(c). Specifically, the licensee failed to accurately assess and assign the appropriate individual dose received on multiple (three) occasions in the first quarter 2010, given thermoluminescent dosimeter (TLD) to electronic dosimeter (ED) data mismatches. The issue was entered in the licensee's corrective action program as AR01730419. The licensee's immediate corrective actions included assigning the appropriate exposures to the involved individuals.

The finding was determined to be more than minor in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," because it was associated with 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 not assigning an individual the appropriate dose received affected the licensee's ability to monitor, control, and limit radiation exposures. Specifically, the inspectors determined that the finding had very low safety significance (Green) because the finding did not involve: (1) as low as is reasonably achievable (ALARA) planning and controls; (2) a radiological overexposure; (3) there was not a substantial potential for an overexposure; and (4) there was no compromised ability to assess dose. This finding has a cross-cutting aspect in the area of human performance, work practices, specifically, that the licensee ensures the use of human error prevention techniques. (H.4(a))
Inspection Report# : 2012002 *(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

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