

Kewaunee

2Q/2008 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow the Provisions of General Nuclear Procedure, GNP-12.06.01, "Hot and Cold Weather Operations."

Green. A finding of very low safety significance (Green) and an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors following an inspection of licensee preparations for adverse weather protection. Specifically, the licensee failed to perform inspections for hot weather operations as required by plant procedure GNP-12.06.01, "Hot and Cold Weather Operations."

The finding was greater than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 20, 2007, because if left uncorrected would become a more significant safety concern. Specifically, the licensee failed to implement the provisions of GNP 12.06.01, "Hot and Cold Weather Operations," which resulted in a failure to ensure pre-summer readiness of numerous safety-related and risk-significant systems. The inspectors evaluated the finding using Attachment 0609.04, of IMC 0609, "Significance Determination Process," dated January 10, 2008, and answered "no" to all of the questions in the Initiating Events column; therefore, the finding was determined to be of very low safety significance. The inspectors determined that the primary cause for this finding was related to the cross cutting area of human performance, work practices component, because personnel have been trained in the need for procedural use and adherence, but failed to follow applicable procedures. Specifically, the procedure which required the performance of plant inspections for hot weather operations, and the maintenance of QA documentation for these inspections, was not followed [H.4(b)]

Inspection Report# : [2008003](#) (*pdf*)

Significance:  Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Maintenance Rule (a)(1) in Corrective Actions on the "G" Instrument Air Compressor

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50.65(a)(1), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants." Specifically, as of August 25, 2007, the licensee failed to implement the Maintenance Rule (a)(1) action plan which had been incorporated into plant procedure N-AS-01 to preclude a loss of the "G" air compressor. The licensee entered the issue into their corrective action program. Corrective actions have included implementation of the procedural requirements of N-AS-01 for both the "G" and "F" air compressors.

The finding is greater than minor because it relates to a licensee failure to implement prescribed significant compensatory measures to manage risk and implement the 10 CFR 50.65(a)(1) action plan. Additionally, the finding is associated with the equipment performance attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process," and determined that this finding is of very low safety significance by answering "No" to all questions in the Initiating Events Cornerstone column.

Inspection Report# : [2007004](#) (*pdf*)

Mitigating Systems

Significance: **G** Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Scaffolding in Close Proximity to Multiple Safety-Related Systems Affects Operability

A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to install scaffolding in accordance with station procedures. Specifically, more than ten examples where scaffolding was built within 2-inches of safety-related systems without an engineering evaluation, and six examples where non-seismic scaffolding was built in safety-related areas were identified. The licensee suspended all scaffold building pending the completion of their corrective actions. The corrective actions included training scaffold builders on proper scaffold building techniques and how to identify operational and seismic concerns, revising procedures for scaffold building to address operations and engineering involvement in the scaffold building process, and a complete plant walkdown of all scaffolding by engineering or operations.

This finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the improperly installed scaffolding could have impeded or prevented proper operation of the safety-related components. Using Attachment 4 of IMC 0609, the inspectors answered "no" to all the screening questions in the SDP Phase 1 Screening Worksheet in the Mitigating Systems column; therefore, this finding is of very low safety significance (Green). The inspectors determined that this finding had a cross cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner.

Inspection Report# : [2008002](#) (*pdf*)

Significance: **G** Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Characterize and Manage Risk in Accordance with Maintenance Rule With the Turbine-Driven Auxiliary Feedwater Pump in Pull-to-Lock

A finding of very low safety significance and an associated Non Cited Violation (NCV) of 10 CFR 50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," was identified by the inspectors during startup of the reactor following a plant shutdown to replace leaking hydrogen coolers on the turbine generator. The licensee entered this issue into its corrective action program.

The finding is greater than minor because if left uncorrected the finding would become a more significant safety concern. Specifically, the licensee failed to correctly characterize the risk on October 12 13, 2007. The inspectors evaluated the finding using Appendix K of Inspection Manual Chapter 0609, "Maintenance Risk Assessment and Risk Management Significance Determination Process," and determined that this finding was of very low safety significance in accordance with Flowchart 1, "Assessment of Risk Deficit."

Inspection Report# : [2007005](#) (*pdf*)

Significance: **G** Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Solenoid Valve Not Installed Properly

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 the "B" turbine building service water header isolation valve failed to fully cycle on demand. Specifically, the licensee failed to provide adequate procedures to support installation and maintenance for certain designs of solenoid valves used in the instrument air system. A failure of an instrument air system solenoid valve caused the service water valve to fail. The licensee repaired the solenoid valve and entered the issue into its corrective action program.

The finding is greater than minor because it is associated with the equipment performance attribute of the Mitigating

Systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee failed to provide adequate procedures to support the installation, maintenance, and operation of safety-related solenoid valve, SV-33044. Using Appendix A of Inspection Manual Chapter 0609, the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet in the Mitigating Systems column; therefore, this finding is of very low safety significance. This finding has a cross-cutting aspect in the area of human performance because related installation and maintenance procedures (resources) were inadequate and not up to date to ensure safety-related equipment was protected (H.2(c)).

Inspection Report# : [2007005](#) (pdf)

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedures for Post-Maintenance Testing of Steam Traps in the Turbine-Driven Auxiliary Feedwater Pump System

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 identified by the inspectors during observation of a post-maintenance test on a steam trap associated with the turbine-driven auxiliary feedwater pump (TDAFWP) in accordance with plant procedure CMP-13-01 “TD-Turbine Room Traps and Drains-Trap Maintenance.” Specifically, the licensee failed to provide adequate procedures to support the testing of the steam trap. The licensee has entered the issue into the corrective action program and will be revising the appropriate procedures.

The finding is greater than minor because the finding is associated with the equipment performance attribute of the Mitigating Systems cornerstone and 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 licensee failed to provide adequate procedures to support the post maintenance testing of steam traps in the TDAFWP system. Using Appendix A of Inspection Manual Chapter 0609, the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet in the Mitigating Systems column; therefore, this finding is of very low safety significance. This finding has a cross-cutting aspect in the area of human performance because the licensee had ample opportunity (resources) available to update procedure CMP-13-01 during multiple prior maintenance activities but did not (H.2(c)).

Inspection Report# : [2007005](#) (pdf)

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Seismic Storage Procedure

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 identified by the inspectors during a review of procedures related to the control and storage of material. Specifically, procedure GNP 01.31.01, “Plant Cleanliness and Storage,” permitted uncontrolled storage of materials next to a Seismic Class 1 system. Additionally, opportunities existed to correct it and/or place compensatory measures in place after the NRC issued an NCV related to this issue in the first quarter of 2007. The licensee has entered the issue into the corrective action program and will be revising the procedure.

The finding is greater than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and 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 procedure allowed uncontrolled storage of materials in the vicinity of Seismic Class 1 systems that could render the systems inoperable during a seismic event. Using Appendix A of Inspection Manual Chapter 0609, the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet in the Mitigating Systems column; therefore, this finding is of very low safety significance. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to take appropriate timely corrective actions or put compensatory actions in place after the NRC issued a Non-Cited Violation relating to this issue in the first quarter of 2007 (P.1(d)).

Significance:  Dec 19, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Extent of Condition Review for Fuel Leak.

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," of very low safety significance, for failure by the licensee to follow procedural requirements for performing an adequate extent of condition for a diesel fuel line failure in 2006. Specifically, the licensee failed to complete an extent of condition which would have evaluated different systems where a similar failure mechanism (cyclic fatigue) could occur. The licensee entered the item into their corrective action program.

The issue is greater than minor because it was associated with the equipment performance attribute of the Mitigating System Cornerstone and affected the cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, it affected the equipment performance attribute for availability and reliability. Using Inspection Manual Chapter 0609, "Significance Determination Process," the inspectors screened this issue as of very low safety significance (Green) because no loss of safety function occurred.

Inspection Report# : [2007011](#) (pdf)

Significance:  Dec 19, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Initiate Corrective Action Documents for Multiple Leaks in the Plant

The inspections identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," of very low safety significance. Specifically, the licensee failed to initiate corrective action documents in accordance with plant procedures for multiple leaks found in the plant. The licensee entered this item into its corrective action program.

The finding is greater than minor because it was associated with the equipment performance attribute of the Mitigating System Cornerstone and affected the cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to identify and correct leakage on equipment important to safety could eventually lead to equipment unavailability during events that the equipment is designed to mitigate. The finding is of very low safety significance (Green), because the inspectors answered "no" to all five questions under the Mitigating Systems Cornerstone column of the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process." Specifically, at the time that the leakage was discovered, none of the leaks immediately impacted the functionality of the equipment affected. The finding has a cross-cutting aspect in the area of human performance because the licensee failed to effectively communicate expectations regarding procedural compliance for the corrective action program.

Inspection Report# : [2007011](#) (pdf)

Significance:  Dec 19, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Update the Updated Safety Analysis Report with Safety Analysis for Pressure Locking of Containment Sump Isolation Valves

The inspectors identified a non cited violation of 10 CFR 50.71, of very low safety significance, for the licensee's failure to update the Updated Safety Analysis Report (USAR). Specifically, the licensee failed to update the USAR to fully reflect the results of a safety analysis performed in response to Generic Letter 95 07, "Pressure Locking and Thermal Binding of Safety Related Power Operated Gate Valves." The licensee entered this issue into its corrective action program.

Because this finding potentially impacted the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. The finding is greater than minor because the failure to provide complete licensing and design basis information in the USAR could result in either the licensee making an inappropriate licensing interpretation or the NRC making an inappropriate regulatory decision based on incomplete information in the USAR. NRC management determined that this issue is of very low safety significance (Green) because it is a

design issue confirmed not to result in a loss of operability.

Inspection Report# : [2007011](#) (*pdf*)

Significance:  Dec 19, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Extent of Condition Review of BF-66 Relays

The inspectors identified a non cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," of very low safety significance, for failure by the licensee to follow procedural requirements for performing an adequate extent of condition following relay failures that led to reactor trips in 2006 and 2007.

Specifically, the licensee failed to perform an extent of condition action to inspect Engineered Safety Feature (ESF) relays when sufficient causal evidence was present that the same style relay in the ESF system (BF 66 relays) were susceptible to sulfidation, installation deficiencies, or manufacturing defects. The licensee entered this issue into its corrective action program.

The issue is greater than minor because, if left uncorrected, the failure to assess the other systems would become a more significant safety concern. Using Inspection Manual Chapter 0609, "Significance Determination Process," the inspectors screened this issue as being of very low safety significance (Green) because no loss of safety function occurred.

Inspection Report# : [2007011](#) (*pdf*)

Significance: SL-IV Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Update the Updated Safety Evaluation Report

The inspectors identified a finding of very low safety significance for the licensee's failure to adequately update the Updated Safety Analysis Report (USAR) in accordance to 10 CFR 50.71, "Maintenance of records, making of reports." The licensee failed to update the USAR to fully reflect changes and analyses made in response to license amendment 184. Once identified, the licensee entered this issue into its corrective action program.

Because this issue potentially impacted the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. The finding is greater than minor because of the failure to provide complete licensing and design basis information in the USAR could result in either the licensee making an inappropriate licensing interpretation or the NRC making an inappropriate regulatory decision based on incomplete information in the USAR. The issue is of very low safety significance based upon a Phase 2 significance determination analysis of the associated technical issue. The issue was a NCV of 10 CFR 50.71(e), which required that the USAR be updated to include the effects of all safety evaluations performed by the licensee in support of requested license amendments.

The primary cause of this violation is related to the cross-cutting area of problem identification and resolution because the extent of condition review performed for a recent and similar violation failed to identify the issue even though it was within the scope of the extent of condition review which had been performed

Inspection Report# : [2007004](#) (*pdf*)

Significance: SL-IV Jun 30, 2007

Identified By: NRC

Item Type: VIO Violation

Failure to Perform a 10 CFR 50.59 Evaluation for Compensatory Measures Associated with a Procedure Change

The inspectors identified a finding having very low safety significance and an associated Severity Level IV, Cited Violation of 10 CFR 50.59 while reviewing unresolved items URI 05000305/2006003-04, "Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling"; and URI 05000305/2006016-01, "Adequacy of 10 CFR 50.59 Screening for Procedure Change." Specifically, the licensee failed to properly interpret design and licensing basis requirements associated with protection against external events and as a result did not perform a 10 CFR 50.59 evaluation. The cause of this finding is related to the cross-cutting area of problem identification and resolution because the licensee had similar prior problems that, if effectively evaluated and resolved, could have prevented this issue. (P.1(c))

This finding was determined to be more than minor because the inspectors determined that the procedure change

would have ultimately required NRC approval. The procedure changes, in the form of compensatory operator actions, adversely impacted the operation of control room recirculation system following a tornado. A Phase 1 significance determination of this finding using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Severe Weather Screening Criteria questions was completed. Since the loss of the control room recirculation system would not result in an initiating event or degrade two or more trains of a multi-train safety system, the issue screened as Green.

Inspection Report# : [2007003](#) (pdf)

Barrier Integrity

Significance:  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow the Provisions of Corrective Action Procedure PI-KW-200 Following Surveillance Testing of Containment Isolation Valve LOCA-31

A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors following surveillance testing of containment isolation valve LOCA 3A in accordance with plant procedure SP 55 167 4B, "Post LOCA Valves Timing Test (IST) from Local Panel-Train B." Specifically, the licensee failed to initiate a condition report in accordance with procedure PI-KW-200, "Corrective Action," following a review of the test results by the inservice testing program engineer who subsequently identified a potential condition which called into question the operability of LOCA-3A.

The finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 20, 2007, because the finding was associated with the structure, system and component (SSC) and barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective to provide reasonable assurance that the physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the licensee failed to implement the provisions of Corrective Action Procedure, PI-KW-200, which resulted in a failure to ensure operability of containment isolation valve LOCA-3A. The inspectors also determined that the primary cause for this finding was related to the cross cutting area of human performance, work practices, because personnel have been trained in need for procedural use and adherence but did not follow applicable procedures.

Inspection Report# : [2008002](#) (pdf)

Significance:  Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Preconditioning of Safety-Related Motor-Operated Valves Prior to Performance of Technical Specification Required Surveillance Testing

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," during plant preparations to perform Surveillance Procedure SP-23-100B, "Train B Containment Spray Pump and Valve Test - IST." Specifically, the inspectors noted on August 8, 2007, that shortly prior to performing the surveillance procedure, the plant had hung safety tags on the containment spray system in order to perform repair activities on IDS-102, a check valve in that system. These tags required that normally open motor-operated valves IDS-202 and IDS-2B be cycled closed and tagged in order to isolate the check valve. Because these motor-operated valves were required to be stroke and time-tested during the performance of the surveillance procedure, and the effects of preconditioning on these valves was not considered prior to implementation of the maintenance activity, the inspectors determined that plant procedures were inadequate to assess preconditioning implications associated with station activities. The licensee entered the issue into their corrective action program. Corrective actions included completion of the surveillance procedure with acceptable results and a evaluation of the test results, which determined that the surveillance test was acceptable.

The finding is greater than minor because it was associated with the configuration control attribute of the Barrier Integrity Cornerstone and 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. The inspectors evaluated the finding using IMC 0609, Appendix A, “Significance Determination Process,” and determined that this finding is of very low safety significance by answering “No” to all questions in the containment barriers cornerstone column. The inspectors also determined that the primary cause for this finding is related to the cross-cutting area of human performance. Specifically, under the component of resources, procedures to assess and prevent preconditioning of safety-related components were not complete, accurate, and up-to-date

Inspection Report# : [2007004](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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 : August 29, 2008