

Braidwood 1

3Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2012

Identified By: NRC

Item Type: FIN Finding

FAILURE TO IMPLEMENT ABNORMAL OPERATING PROCEDURES WHEN ENTRY CONDITIONS WERE PRESENT

The inspectors identified a finding of very low safety significance (Green) when licensee personnel failed to implement adverse weather Abnormal Operating Procedures (AOPs) when entry conditions were present. Specifically, the site was not aware of a severe thunderstorm warning that had been issued for the area on May 6, 2012, and did not implement site procedures that directed actions to be taken upon adverse weather conditions. In addition to entering the issue in the Corrective Action Program (CAP) as Issue Report (IR) 1364132, corrective actions included ensuring access to the National Weather Service website for Operations personnel, and implementation of additional weather alert notification tools. The performance deficiency was determined to be more than minor because it could be reasonably viewed as a precursor to a significant event in that the failure to implement the adverse weather AOPs could result in the failure to take actions intended to minimize the potential for a Loss of Offsite Power (LOOP) when the likelihood is elevated by adverse weather conditions. The performance deficiency was also determined to be 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 those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609, Attachment 4, Table 2, the finding was determined to affect the Transient Initiator Contributor (e.g. loss of offsite power) function of the Initiating Events Cornerstone. The inspectors answered 'No' to the Transient Initiator questions in IMC 0609, Attachment 4, Table 4a. As a result, the issue screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Resources component of the Human Performance cross cutting area because the licensee's facilities were not adequate to ensure main control room personnel were aware of the severe thunderstorm warning (H.2(d)).

Inspection Report# : [2012003](#) (*pdf*)

Significance: G Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

STEAM GENERATOR PRIMARY MANWAY BOLTS EXAMINED WITH UNQUALIFIED PROCEDURE

A finding of very low safety significance (Green) and an associated NCV of 10 CFR 50.55a(g)4 was identified by the inspectors when licensee personnel failed to establish an ultrasonic test (UT) examination procedure for steam generator primary manway bolts qualified in accordance with the American Society of Mechanical Engineers (ASME) Code, Section XI. Specifically, the licensee failed to determine a limit for maximum scan speed and incorporate this limit into the ultrasonic examination procedure applied to the steam generator primary side manway bolting. The licensee entered this issue into the CAP as IR 1359195 and performed a procedure performance demonstration to qualify the maximum scan speed allowed for the UT examination of manway bolts. The performance deficiency was determined to be more than minor because the issue, if left uncorrected, would become a more significant safety concern. Absent NRC identification, the absence of a scan speed could have allowed service induced cracks to go

undetected. Undetected cracks would place the steam generator primary manway closure bolting at increased risk for failure, which would affect the pressure retaining integrity of the Reactor Coolant System (RCS) and pose an increased risk for through wall leakage and/or failure. Because the licensee promptly corrected this issue before unacceptable flaws were returned to service, the inspectors answered 'No' to the Significance Determination Process Phase I screening question "Assuming worst case degradation, would the finding result in exceeding the Tech Spec [Technical Specification] limit for any RCS leakage or could the finding have likely affected other mitigation systems resulting in a total loss of their safety function assuming the worst case degradation?" Therefore, this finding screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Decision-Making component of the Human Performance cross-cutting area because the licensee did not implement conservative assumptions regarding a UT essential variable when creating the UT procedure and demonstrating that procedure. Specifically, the licensee staff failed to understand the significance of establishing a scanning speed into the UT procedure and recording the scanning speed during the procedure demonstration (H.1(b)).
Inspection Report# : [2012003](#) (pdf)

Significance: G Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ACCOMPLISH CORRECTIVE ACTIONS FOLLOWING IDENTIFIED BORIC ACID LEAKAGE ON REACTOR HEAD PENETRATION NO. 77

A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified by the inspectors when licensee personnel failed to accomplish corrective actions following identified boric acid leakage on a reactor head penetration. Specifically, the licensee did not adequately implement corrective actions involving cleaning and removal of boric acid deposits following identified boric acid leakage on Reactor Head Penetration No. 77. The licensee entered this issue into the CAP as IR 1359227 and performed a UT examination of the penetration to confirm that no leakage path existed and a post cleaning visual examination to confirm no signs of gross degradation.

The performance deficiency was determined to be more than minor because the issue was associated with the Equipment Performance attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown, as well as power operation. Specifically, the reactor head was returned to service without accomplishing corrective actions to remove all boric acid deposits from the Penetration No. 77 leakage. This resulted in boric acid deposits being left on the reactor head for one operating cycle and masking of potential surface indications from Penetration No. 77 leakage during the subsequent Bare Metal Visual (BMV) examination. Because no gross visual degradation was observed during the BMV examination after cleaning of boric acid deposits and no leakage path was detected during the UT examination of Penetration No. 77 in the A1R16 outage, the inspectors answered 'No' to the SDP Phase I screening question "Assuming worst case degradation, would the finding result in exceeding the Tech Spec limit for any RCS leakage or could the finding have likely affected other mitigation systems resulting in a total loss of their safety function assuming the worst case degradation?" Therefore, the finding screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Work Control component of the Human Performance cross-cutting area because the licensee did not appropriately plan the reactor work activity to repair and clean the mechanical connection on Penetration No. 77 by incorporating job site conditions including risk insights associated with potentially washing down boric acid deposits below the reactor head insulation onto the reactor head (H.3(a)).

Inspection Report# : [2012003](#) (pdf)

Mitigating Systems

Significance:  Aug 24, 2012

Identified By: NRC

Item Type: VIO Violation

Failure to Install Foam-Water Sprinklers In Accordance With Sprinkler Standard

The inspectors identified a finding of very low safety significance associated with cited violation of License Condition 2.E for the licensee's failure to implement the approved Fire Protection Program by failing to install foam-water sprinklers in accordance with the standard for installing sprinklers. Specifically, the licensee failed to correct significant obstructions to foam-water sprinklers in the Unit 2 2B diesel oil storage tank room that were previously identified by the NRC in a Non-Cited Violation in May 2010. The licensee entered this issue into their corrective action program and planned to survey each of the four diesel oil storage tank rooms for obstructions to determine the scope of physical changes needed to bring each room into compliance with the standard for installing sprinklers. The licensee will address corrective actions as part of their response to the Notice of Violation.

The inspectors determined that the finding was more than minor because the significant obstructions to foam-water sprinklers in the 2B diesel oil storage tank room could adversely affect the application of foam or water suppressant in the event of a fire. The finding was of very low safety significance because a fire in the 2B diesel oil storage tank room would only affect the associated emergency diesel generator and no other equipment would be affected. This finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because the issue had been previously identified by the NRC and the resolution did not address the cause of the issue, (i.e., the physical installation).

Inspection Report# : [2012008](#) (*pdf*)

Significance:  Aug 24, 2012

Identified By: NRC

Item Type: FIN Finding

Failure to Properly Address Fire Brigade Performance Deficiencies

The inspectors identified a finding of very low safety significance for the licensee's failure to properly address fire brigade drill performance deficiencies identified after completion of an unannounced fire drill. Specifically, the licensee failed to address the need to wait for the fire brigade leader's determination that it was safe to use elevators. The licensee entered this issue into their corrective action program and generated training requests to reinforce the proper use of elevators by the fire brigade.

The inspectors determined that the finding was more than minor because the finding, if left uncorrected, would become a more significant safety concern. Specifically, the improper use of elevators by the fire brigade during a fire could impact the ability of the brigade to fight a fire as smoke, heat, or flames could affect fire brigade members upon opening of elevator doors on the fire floor. The finding was of very low safety significance because the simulated fire was successfully suppressed by individuals who did not use the elevator. This finding had a cross-cutting aspect in the area of Human Performance, Work Practices because the licensee did not enforce expectations on not proceeding in the face of uncertainty or unexpected conditions.

Inspection Report# : [2012008](#) (*pdf*)

Significance:  Jun 30, 2012

Identified By: NRC

Item Type: FIN Finding

OPERABILITY DETERMINATION STANDARDS NOT FOLLOWED FOR HELB RELATED STRUCTURAL ISSUES IDENTIFIED BY THE NRC

The inspectors identified a finding of very low safety significance (Green) when licensee personnel failed to follow the Operability Determination process after identifying potential safety related structural loading issues created by a postulated turbine building High Energy Line Break (HELB). Specifically, the licensee identified and addressed a very specific issue related to safety related divisional separation wall loading concerns, but failed to adequately evaluate the extent to which a postulated current licensing basis (CLB) HELB condition could affect other Technical Specification (TS) and/or safety related structures, systems, and components (SSCs) within the areas of concern. The licensee entered these issues into the CAP as IR 1382574 and IR 1389889. Corrective actions included performing a prompt operability determination associated with the issues raised by the inspectors. The licensee also planned to complete a formal revision to Operability Evaluation 2012-004 by July 24, 2012. The performance deficiency was determined to be more than minor because it was similar to the “not minor if” aspect of Example 3.j in IMC 0612, Appendix E, “Examples of Minor Issues,” since the issues identified by the inspectors resulted in a condition in which there was a reasonable doubt on the operability of the structures protecting TS components and systems that perform a TS function. The issues were dissimilar from the “minor because” aspect of the example since the impact of the issues were not minimal. In addition, the performance deficiency was determined to be more than minor because it was associated with the Design Control 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). The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, “Significance Determination Process”, Attachment 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered ‘No’ to all of the Mitigating Systems Cornerstone questions in Table 4a of IMC 609 and, as a result, the finding screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Decision Making component of the Human Performance cross cutting area because licensee personnel failed to use the Operability Determination process to evaluate the issues identified by the inspectors and therefore did not obtain interdisciplinary input to make an operability decision (H.1(a)).

Inspection Report# : [2012003](#) (*pdf*)

Significance:  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN APPROVED FIRE PROTECTION PROGRAM REGARDING SAFE SHUTDOWN FIRE DAMPER QUALIFICATION

The inspectors identified a finding of very low safety significance and an associated NCV of License Condition 2.E when licensee personnel failed to adequately maintain the approved fire protection program after receiving information that adversely affected the qualification of fire dampers credited in the safe shutdown analysis. Specifically, the licensee inadvertently removed an action to secure ventilation upon the confirmation of a fire following a revision to the station’s Pre-Fire Plans in 2010. This action was established after the licensee received NRC Information Notice (IN) 89 52, “Potential Fire Damper Operational Problems,” which notified the licensee that these dampers were not qualified to shut with air flow through them. A significant contributor to this error was a failure of the licensee to adequately incorporate this action into the appropriate procedures and clearly document this requirement and basis for this requirement into the approved fire protection program. The licensee entered this issue into their corrective action program (CAP) as IR 1309949. Corrective actions included the implementation of Operations Standing Order 11 027 requiring manual operator action until a procedure change to the Fire Hazardous Materials Spill and/or Injury procedure (BwAP 1100 16), and Fire Response Guidelines (BwOP FP 100) was performed. Additionally, the licensee created an assignment to provide training to the fire brigade leaders for these planned procedure revisions. The finding was determined to be more than minor because it was associated with the Design Control 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 failure to ensure that ventilation systems were secured upon the confirmation of a fire could affect the ability of fire dampers to shut and perform their safety function. The inspectors

evaluated this finding using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase I Initial Screening and Characterization of Findings," Table 3b for the Mitigating Systems Cornerstone, which directed this finding be reviewed using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," since the finding affected fire barriers. The inspectors assigned this issue a "low degradation" rating based upon the high likelihood that ventilation would be secured upon the onset of a fire due to numerous ionization detectors that automatically trip ventilation systems upon the detection of smoke. Based on this assigned rating, the inspectors determined that this finding was of very low safety significance (Green). The inspectors determined that the most significant causal factor related to this finding was a failure to adequately incorporate the requirement into the current licensing basis (CLB) in 1989, and therefore this finding was not indicative of current performance and a cross-cutting aspect was not assigned.

Inspection Report# : [2012002](#) (*pdf*)

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROMPTLY CORRECT CONDITIONS ADVERSE TO QUALITY

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to promptly correct conditions adverse to quality. Specifically, from 2006 to 2011, licensee personnel failed to correct a poor material condition in the auxiliary building ventilation (VA) intake plenums that resulted in clogging of floor drains and water leakage into electrical penetration and cable spreading room areas; and from 2010 to 2012, the licensee failed to correct a degraded floor drain in the Unit 2 miscellaneous electrical equipment room (MEER) that was next to a safety shower adjacent to a safety related direct current (DC) bus. The licensee entered this issue into their CAP as IRs 1291696 and 1332289. Corrective actions included cleaning and re coating the VA intake plenums and routing out the floor drains in the MEERs. The finding was determined to be more than minor because it was associated with the Design Control and Protection Against External Events attributes 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 licensee failed to promptly correct degraded and clogged auxiliary building floor drains or the poor material condition in the VA intake plenum. The inspectors evaluated this finding using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase I Initial Screening and Characterization of Findings," and determined that the finding affected the Flood Protection Degraded Function of the Mitigating Systems Cornerstone, per Table 2. The inspectors answered 'Yes' to Question 5 in Table 4a, which directed the inspectors to Table 4b since the issue was related to flood protection. The inspectors answered 'No' to Question 2 of Table 4b because the floor drains were degraded, but the pooling water in the VA plenums or MEERs would not have likely resulted in a plant trip or transient. As a result, the issue screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross cutting area because the licensee failed to properly classify, prioritize, or evaluate conditions adverse to quality associated with auxiliary building floor drains and VA intake plenum such that the conditions were promptly corrected [P.1(c)].

Inspection Report# : [2012002](#) (*pdf*)

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SCOPE SAFETY-RELATED HELB BARRIERS INTO THE MAINTENANCE RULE

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50.65(a)(1), 10 CFR 50.65(a)(2), and 10 CFR 50.65(b) when licensee personnel failed to scope numerous high energy line break (HELB) hazard barrier dampers into the maintenance rule, as required. The function of these barriers was to protect

safety-related equipment such as the emergency diesel generators (EDGs) and safety-related alternating current (AC) and DC buses and cables from credited HELB sources in the turbine building. The licensee entered this issue into their CAP as IR 1310448. Corrective actions included scoping the dampers into the maintenance rule and assigning preventative maintenance performance monitoring criteria.

The finding was determined to be more than minor because it was associated with the Equipment 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 failure to monitor damper performance and establish performance goals could adversely affect the availability, reliability, and capability of safety-related structures, systems and components protected by the hazard barrier. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Phase I Initial Screening and Characterization of Findings," Table 4a for the Mitigating Systems Cornerstone. The finding screened as having very low safety significance since it was not a design or qualification deficiency confirmed not to result in a loss of operability or functionality. This finding was not indicative of current performance since the scoping aspects were determined prior to the rule's effective date of July 10, 1996. As a result, a cross-cutting aspect was not assigned to this finding.

Inspection Report# : [2012002](#) (*pdf*)

Significance:  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

INCORRECT CLASSIFICATION OF ENVIRONMENTAL QUALIFICATION ZONES

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50.49(e) when licensee personnel failed to correctly classify the EDGs, essential switchgear (ESG), and MEERs containing electrical equipment important to safety. Specifically, the licensee's environmental qualification (EQ) program did not take into consideration the temperature and humidity changes expected for these rooms following a turbine building HELB and improperly classified these rooms as mild environments subjected to abnormal conditions instead of harsh environments. The licensee entered this issue into their CAP as IR 1288474. Corrective actions included an assignment for Corporate Engineering to provide a recommended environmental classification for the rooms where the abnormal conditions, due to a turbine building HELB event, were expected to occur. The finding was determined to be more than minor because it was associated with the Equipment 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). The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Phase I Initial Screening and Characterization of Findings," Table 4a for the Mitigating Systems Cornerstone. The finding screened as having very low safety significance since it was not a design or qualification deficiency confirmed not to result in a loss of operability or functionality. This finding was not indicative of current performance and therefore was not assigned a cross-cutting aspect because the EQ classification of the rooms was completed in 1992.

Inspection Report# : [2012002](#) (*pdf*)

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: FIN Finding

OPERABILITY EVALUATION NOT PERFORMED IN ACCORDANCE WITH STATION STANDARDS

The inspectors identified a finding of very low safety significance when licensee personnel failed to adhere to Operability Determination Process standards after identifying a non-conservative assumption related to closure times for hazard barrier dampers separating the Turbine Building from various safety-related rooms within the Auxiliary

Building. In particular, the issues raised by the inspectors during their review of Operability Evaluation 11-006, Revision 1, resulted in the station re-evaluating the non-conservative assumptions against aspects of the Current Licensing Basis (CLB) not previously considered, and substantially revising Operability Evaluation 11-006, Revision 1. The licensee entered these issues into their CAP as IR 1185016, IR 1199223, IR 1237395, IR 1237140, IR 1242942, IR 1246918, IR 1276888, IR 1277627, and IR 1279543. In addition to revising Operability Evaluation 2011-006, Revision 1, corrective actions included an assignment to reconstitute design basis calculation records and plans to re-design the hazard barrier dampers. This finding did not involve enforcement action because no regulatory requirement was violated. The finding was determined to be more than minor because it was associated with the Design Control 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). The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered "No" to all of the Mitigating Systems Cornerstone questions in Table 4a of IMC 0609.04, and, as a result, the finding screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area [P.1(c)] because the licensee failed to thoroughly evaluate the impact on operability of a non-conforming condition associated with hazard barrier damper closure times.

Inspection Report# : [2011005](#) (pdf)

Significance: G Dec 31, 2011

Identified By: NRC

Item Type: FIN Finding

FAILURE TO ADHERE TO MAINTENANCE RULE IMPLEMENTATION PROCEDURES

The inspectors identified a finding of very low safety significance when licensee personnel failed to adhere to licensee procedure ER AA 310, "Implementation of the Maintenance Rule." Specifically, procedural requirements for the use of operator restoration actions to credit availability of auxiliary feedwater, main steam dump valves, or emergency diesel generator ventilation during certain surveillances were not met. The licensee entered this issue into their CAP as IR 1249723, IR 1251652, IR 1291692, IR 1293440, and IR 1293998. Immediate corrective actions included a review of all risk management actions and implementation of new Operations Standing Order requirements to enhance discussions of risk management actions and to formally log dedicated operator assignments. The licensee was also improving the method of documenting and using restoration actions such that the actions would be more formally documented and referenced in controlled procedures. This finding did not involve enforcement action because no regulatory requirement was violated.

The finding was determined to be more than minor because it was associated with the Procedure Quality 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). The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered 'No' to all of the Mitigating Systems Cornerstone questions in Table 4a of IMC 0609.04 and, as a result, the finding screened as having very low safety significance. This finding had a cross cutting aspect in the Resources component of the Human Performance cross cutting area [H.2(c)] because the documented restoration actions for several surveillances were not in accordance with licensee procedures or industry generic guidance.

Inspection Report# : [2011005](#) (pdf)

Significance: G Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW AND ESTABLISH ADEQUATE HAZARD BARRIER IMPAIRMENT PROCEDURES

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50.65(a) (4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," when the licensee's process for the control of hazard barriers failed to manage the risk of temporarily impairing barriers under certain circumstances. Specifically, the licensee's Risk Management and Plant Barrier Impairment (PBI) Processes provided generic approval for the impairment of a hazard barrier door function to permit movement of heavy equipment through the door provided the duration was less than 30 minutes and the door was not blocked open. The inspector's were concerned that this would not restrict activities in which the equipment being moved would prevent the door from closing and providing its hazard barrier function during the 30 minute time frame. The licensee communicated to the inspector's that the 30 minutes had no regulatory basis, but was used, in part, because it was reasonable. In addition to this example, the inspectors identified two examples in which licensee personnel failed to adhere to the station's PBI Program, which adversely affected the station's ability to manage risk. The licensee entered this issue into their CAP as IR 1282782 and IR 1307401. As a result of the inspectors' observations, the licensee revised procedure BwAP 1110 03, "Plant Barrier Impairment Program," to include additional guidance on the control of hazard barriers. The licensee was also considering whether additional training of personnel on the control of hazard barriers was warranted.

The finding was determined to be more than minor because it was associated with the Design Control 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). The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered 'No' to all of the Mitigating Systems Cornerstone questions in Table 4a and, as a result, the finding screened as having very low safety significance. This finding had a cross cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross cutting area [P.2(b)] since licensee personnel failed to adequately utilize operating experience (i.e., Regulatory Information Summary 2001 009, "Control of Hazard Barriers") to ensure that station procedures provided adequate controls for effectively managing risk when hazard barrier doors could be impaired during activities to facilitate maintenance.

Inspection Report# : [2011005](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO EVALUATE EMERGENCY COMMUNICATION SYSTEM PERFORMANCE AGAINST MAINTENANCE RULE CRITERIA

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50.65(a)(1) when licensee personnel failed to adequately monitor the performance of nonsafety related systems and components that exceeded performance criteria against pre established goals. Specifically, inadequate tracking of failures in the

Emergency Communication (CQ) system resulted in the failure to evaluate corrective actions by the Maintenance Rule Expert Panel when 10 CFR 50.65(a)(1) performance criteria were unknowingly exceeded. In addition, once the system was placed in an (a)(1) status for an unrelated reason, the Action Plan did not address all of the performance criteria that had been unknowingly exceeded. The licensee entered this issue into their CAP as IR 1251652. Immediate corrective actions included revising the (a)(1) Action Plan to address the additional failures and to determine why the previously unknown failures were not included in the maintenance rule database. The finding was determined to be more than minor because it was associated with the Facilities and Equipment attribute of the Emergency Preparedness Cornerstone and adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings." Because this finding was associated with the Emergency Preparedness area, further evaluation was completed using IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process." Using the examples of findings associated with Planning Standard 10 CFR 50.47(b)(6) and Planning Standard 10 CFR 50.47(b)(8), the inspectors concluded that the finding was of very low safety significance. The inspectors determined that there was no cross cutting aspect associated with this finding since none of the cross-cutting aspects in IMC 0310 were determined to be appropriate for this issue.

Inspection Report# : [2011005](#) (pdf)

Occupational Radiation Safety

Public Radiation Safety

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN ADEQUATE CIRCULATING WATER BLOWDOWN PROCEDURE DURING LIQUID RADIOLOGICAL RELEASES

The inspectors identified a finding of very low safety significance and an associated NCV of Technical Specification 5.4.1, "Procedures," when licensee personnel failed to adequately maintain procedure BwOP CW-12, "Circulating Water Blowdown System Fill, Startup, Operations, and Shutdown." The Circulating Water Blowdown system was used during certain liquid radiological releases. Specifically, the licensee's procedure did not provide sufficient guidance to prevent the system from being operated outside analyzed limits. The potential consequence of not operating this system within the design assumptions was an unplanned and unmonitored release of radioactive material to the environment. This issue was entered into the licensee's CAP as IR 1299273. Corrective actions included the implementation of an Operations Standing Order to prohibit the operation of the Circulating Water Blowdown lineup and an assignment to formally revise the procedure.

The finding was determined to be more than minor because it was associated with the Programs and Processes attribute of the Public Radiation Safety cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of public health and safety from exposure of radioactive materials released into the public domain as a result of routine civilian nuclear reactor operations. The inspectors determined that the finding could be evaluated in accordance with IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," since the finding was associated with the licensee's Radioactive Effluent Release program. This finding was determined to be of very low safety significance since it was not a failure to implement the effluent program and no unplanned or unmonitored release actually occurred. This finding had a cross cutting aspect in the Decision Making component of

the Human Performance cross cutting area [H.1(a)] since licensee personnel failed to demonstrate that nuclear safety was an overriding priority. Specifically, licensee personnel failed to make risk significant decisions when faced with uncertain or unexpected plant conditions to ensure safety was maintained.

Inspection Report# : [2011005](#) (*pdf*)

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: SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SUBMIT LICENSEE EVENT REPORT PER 10 CFR 50.73(a)(2)(vii)

The inspectors identified a Severity Level IV NCV of 10 CFR 50.73(a)(2)(vii) when licensee personnel failed to report events where a single cause or condition could have caused two safety related instrument channels to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe shutdown condition. Specifically, on March 8, 2011, the licensee had identified errors in the station's High Energy Line Break (HELB) calculations of record. On March 14, 2011, the licensee completed an Operability Evaluation and concluded that the equipment rollup doors for the Division 11 and Division 21 Miscellaneous Electric Equipment Rooms (MEERs) could not be opened in Modes 1 4 without declaring the safety related instrument inverters within the rooms inoperable. The licensee implemented administrative compensatory actions to prevent these doors from being opened in Modes 1 4. On April 7, 2011, the inspectors identified that the licensee did not have plans to review this issue for 10 CFR 50.73 reporting requirements. The inspectors notified the licensee that they were aware of previous instances when these doors had been opened in Modes 1 4. Following the inspectors' discussion with the licensee, the licensee initiated a CAP assignment to conduct a formal License Event Report (LER) review. The due date for this assignment was revised numerous times. The inspectors challenged the timeliness of this review based on the previous conclusions in the Operability Evaluation and the historic practice of not restricting access to these doors in any operational mode. On December 22, 2011, the licensee submitted an LER to report multiple historic events. The inspectors concluded that the licensee failed to submit the LER within 60 days of the discovery of the event on March 14, 2011, based upon a review of 10 CFR 50.73 and NUREG-1022, Revision 2. This issue was entered into the licensee's CAP as IR 1299906. Corrective actions included submitting an LER to the NRC on December 22, 2011. The inspectors determined that the failure to submit an LER in accordance with NRC regulations was a performance deficiency. Since this issue impacted the regulatory process, it was dispositioned through the TE process. The inspectors determined that this issue was a Severity Level IV violation based on a similar example referenced in Supplement I, Example D.4 of the NRC Enforcement Policy. The inspectors reviewed the technical issue related to the HELB calculation errors using the Reactor Oversight Process and documented a licensee-identified NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which was of very low safety significance. Reactor Oversight Process cross cutting aspects do not apply to traditional enforcement issues, or licensee identified ROP findings of very low

safety significance, therefore, none was identified.

Inspection Report# : [2011005](#) (*pdf*)

Significance: SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM ADEQUATE EVALUATIONS TO FACILITATE INDEPENDENT SPENT FUEL STORAGE INSTALLATION ACTIVITIES

The inspectors identified a Severity Level IV NCV of Title 10 of the Code of Federal Regulations (CFR) 72.146, "Design Control," when licensee personnel failed to perform adequate evaluations of the Independent Spent Fuel Storage Installation (ISFSI) pad, ISFSI components, and the effects of ISFSI loading operations on the operating plant. Specifically, the inspectors identified three examples in which licensee personnel failed to perform adequate evaluations to ensure compliance with 10 CFR 72.212(b)(5)(ii); 10 CFR 72.212(b)(8); and the Safety Analysis Report (SAR) referenced in the Holtec Certificate of Compliance (CoC). The licensee entered these issues into their Corrective Action Program (CAP) as Issue Report (IR) 1280650, IR 1278520, and IR 1245756. Corrective actions included revisions to calculations. Because this violation was related to an ISFSI license, it was dispositioned using the Traditional Enforcement (TE) process in accordance with Section 2.2 of the Enforcement Policy. The inspectors determined that the deficiency was of more than minor significance because the licensee's evaluation did not assure structural integrity of the affected components under the design basis loads, and required extensive revisions to the calculations. The inspectors determined that the issue represented a Severity Level IV violation. Reactor Oversight Process (ROP) cross cutting aspects do not apply to TE issues or licensee identified ROP findings of very low safety significance, therefore, none was identified.

Inspection Report# : [2011005](#) (*pdf*)

Significance: SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURES TO ENSURE MULTI PURPOSE CANISTER DESIGN BASIS PRESSURE IS NOT EXCEEDED

The inspectors identified a Severity Level IV NCV of 10 CFR 72.150, "Instructions, Procedures, and Drawings," when licensee personnel failed to adhere to procedures to ensure that the design pressure limit for the multi-purpose canister (MPC) would not be exceeded during loading operations. The licensee entered this issue into their CAP as IR 01279837, IR 01286670, and IR 01285354. The licensee imposed an ISFSI stand-down to reinforce and correct procedure use and adherence as a corrective action to restore compliance. The issue was determined to be of more than minor significance using IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," Example 2h, in that multiple examples of a failure to follow procedures were identified. Although the violation contributed to the likelihood of the canister design pressure being exceeded, it was verified that the canister was within its design pressure. Therefore, the inspectors determined that the issue represented a Severity Level IV violation. Reactor Oversight Process cross cutting aspects do not apply to TE issues or licensee identified ROP findings of very low safety significance, therefore, none was identified.

Inspection Report# : [2011005](#) (*pdf*)

Last modified : November 30, 2012