

Oconee 2

2Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Design Verification of the NPBS-BWST/SSF Trench Foundation

A self-revealing finding was identified for the licensee's failure to implement the requirements of the modification program to ensure the natural phenomenon barrier system (NPBS) borated water storage tank (BWST)/standby shutdown facility (SSF) trench foundation modification did not adversely impact the yard drain system's function. The condition was entered into the licensee's corrective action program (CAP) as problem investigation program (PIP) O-11-3285.

The failure to implement the requirements of the modification program to verify the NPBS BWST/SSF trench foundation modification did not adversely impact flood protection features was a performance deficiency (PD). The PD was more than minor because it was associated with the Mitigating Systems cornerstone attribute of Protection Against External Factors - Flood Hazard and adversely affected the cornerstone objective in that the design modification bypassed the yard drain system which was credited for external flood protection. The finding was of very low safety significance (Green) because the rainwater intrusion did not result in the loss of operability or functionality of safety-related structures, systems, and components (SSCs). The cause of the finding was directly related to the appropriately planning work activities cross-cutting aspect of the Work Control component in the area of Human Performance because the licensee failed to incorporate environmental conditions which may impact SSCs into the modification. [H.3(a)] (Section 1R01)

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate risk management associated with the removal of the Unit 2 west penetration room girts

An NRC-identified non-cited violation of 10 CFR 50.65(a)(4) was identified for the licensee's failure to effectively implement risk mitigation actions as defined in the Complex Activity Plan for the Unit 2 Cask Decon Tank Room and West Penetration Room (WPR) Siding Demolition project. A temporary seismic barrier was not properly constructed and would not have protected safety-related equipment in the event of a WPR wall collapse. The licensee delayed removal of the girts until the construction deficiencies were corrected. This condition was placed into the corrective action program (CAP) as Problem Investigation Program report (PIP) O-11-00747.

The failure to implement a risk mitigation action in accordance with the Complex Activity Plan was a performance deficiency (PD). The PD was more than minor because it had the potential to become a more significant safety concern if left uncorrected in that the temporary seismic barrier would not have performed its intended function of protecting safety-related equipment if the WPR wall collapsed. The finding was of very low safety significance (Green) because there was no increase in the Incremental Core Damage Probability since the construction deficiencies were corrected prior to removal of the girts. The cause of the finding was directly related to the Supervisory and Management Oversight aspect of the Work Practices component in the cross-cutting area of Human Performance because the licensee failed to ensure that the appropriate level of supervisory and management oversight was applied to the installation of the temporary seismic barrier. [H.4(c)] (Section 1R13)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate post modification testing to ensure SSF DG functionality

An NRC-identified [Green Non-cited] Violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to ensure that a modification installed on the Safe Shutdown Facility (SSF) Diesel Generator (DG) monitoring panel would not affect the ability of the SSF Power subsystem to perform its design function. The finding does not represent an immediate safety concern because the chart recorder was modified so that it did not send an output signal to the SSF control and protection logic circuit.

The licensee's failure to ensure the post-modification testing was adequate to verify the modification did not affect the SSF Power subsystem's ability to perform its design function was a performance deficiency (PD). The PD was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and adversely impacted the cornerstone objective in that the modification would have prevented the SSF DG from starting and supplying power to the SSF. The safety significance of this finding was To Be Determined pending completion of a Phase III risk analysis. The finding was directly related to the cross-cutting area of Human Performance under the Procedural Compliance aspect of the Work Practices component because the licensee failed to ensure station modification program requirements were followed in the development of post-modification testing. [H.4(b)] (Section 1R18)

Inspection Report# : [2011002](#) (pdf)

Inspection Report# : [2011003](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to adequately protect risk significant and safety-related systems, structures or components (SSCs) from cold weather conditions.

An NRC-identified non-cited violation (NCV) of TS 5.4.1.a was identified for the licensee's failure to implement procedures to ensure equipment associated with cold weather protection of risk significant and safety-related systems, structures or components (SSC's) was in-service and functional prior to the onset of cold weather. This issue was entered into the licensee's corrective action program as PIP O-10-9308. Corrective actions taken include expediting maintenance on equipment determined to be non-functional, assigning an individual as a cold weather protection point-of-contact and revising/developing procedures to ensure similar deficiencies do not occur in the future.

The licensee's failure implement cold weather procedures was a performance deficiency (PD). The PD was more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern in that safety-related or risk significant SSC's could be adversely affected by cold ambient temperatures. The finding was of very low safety significance (Green) because the finding did not result in the likelihood of a reactor trip at the same time that mitigation equipment or associated functions would not be available. The finding involved the cross-cutting area of Human Performance under the Management Oversight aspect of the Work Practices component in that the licensee failed to provide the appropriate management oversight to ensure the activities required to prepare the plant for cold weather conditions were completed prior to the onset of cold weather. [H.4.c] (Section 1R01)

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: FIN Finding

Failure to prescribe procedures for inspecting the east penetration room floor seals

An NRC-identified finding was identified for the licensee's failure to verify the operability of the East Penetration Room (EPR) expansion joint floor seals for all three units since 2006. Selected Licensee Commitment (SLC) Surveillance Requirement (SR) 16.9.11a.7 required the licensee to verify the operability of auxiliary building (AB)

floor seals every eighteen months.

The licensee's failure to ensure that the required EPR expansion joint floor seal inspections were performed as required by SLC SR 16.9.11a.7 was a PD. The PD was more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern in that the floor seals could further degrade and affect the function of the flood

outlet devices (FOD) to protect safety-related related equipment from flooding after a HELB in the EPR. The inspectors determined that the finding was of very low safety significance (Green) because the degradation the EPR floor seals did not result in the loss of operability or functionality of equipment they were designed to protect. The cause of this finding was directly related to the "complete, accurate, and up-to-date design documentation, procedures and work packages" aspect of the Resources component of the Human Performance cross-cutting area, in that, procedures and work packages to perform the surveillance were not updated following the FOD modification. [H.2(c)] (Section 1R06)

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to install structural rebar as required by instructions and drawings.

An NRC-identified non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified for the licensee's failure to adhere to drawings and instructions during the installation of rebar in QA-1 structures prior to concrete placement. The inspectors identified two examples where rebar installation did not meet the concrete coverage requirements specified in ACI Code 117-06. This violation has been entered into the licensee's corrective action program as PIPs O-10-9091 and O-10-9351.

The licensee's failure to follow approved drawings and instructions for construction of QA-1 structures was a PD. The PD was more than minor because, if left uncorrected, insufficient concrete coverage on the rebar could lead to rebar corrosion and challenge the integrity of the QA-1 structures under construction. The finding was of very low safety significance (Green) because the finding did not result in the actual loss of function of the PSW duct bank, the Emergency Condensate Cooling Water pipe, or the PSW Building roof. The finding was directly related to the cross-cutting area of Human Performance under the "Procedural Compliance" aspect of the "Work Practices" component because the licensee failed to effectively ensure workers followed procedures and written guidance in the performance of their activities. [H.4(b)] (Section 1R18)

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 17, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to properly evaluate potentially degraded conditions for potential impact on operability or functionality.

•Green. An NRC-identified Non-cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the licensee's failure to evaluate degraded or nonconforming conditions and perform operability determinations or functionality assessments as prescribed in procedure OMP 2-01, Duties and Responsibilities of On-Shift Operations Personnel. The inspectors determined that the licensee routinely failed to evaluate known conditions adverse to quality documented in work orders and work requests for potential impact on the operability or functionality of systems, structures or components (SSC's).

The failure to evaluate work orders (WOs) or work requests (WRs) for potentially degraded or nonconforming conditions as required by OMP 2-01 was a performance deficiency (PD). This PD was more than minor because, if left uncorrected it had the potential to lead to a more significant safety concern. The failure to evaluate potential conditions adverse to quality as prescribed in OMP 2-01 could result in the licensee failing to determine that a degraded or nonconforming condition could affect the system's ability to perform its safety function. The finding was determined to have very low safety significance (Green) because the finding did not represent an actual loss of safety

function of a system or train. This finding has a cross cutting aspect in the area of Human Performance associated with the component of Work Practices because licensee management failed to define and effectively communicate expectations regarding procedural compliance such that personnel follow procedures [H.4(b)].

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

Significance:  Dec 17, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to adequately monitor performance of the standby shutdown facility HVAC system as required by 10 CFR 50.65

•Green. An NRC-identified non-cited violation of 10 CFR 50.65(a)(2), was identified for failure to demonstrate that Standby Shutdown Facility (SSF) Ventilation system performance was being effectively controlled through the preventive maintenance (PM) program, or place the system in 10 CFR 50.65(a)(1) status due to SSF Heating Ventilation and Air Conditioning (HVAC) system maintenance rule functional failures beyond established performance criteria.

The failure to perform adequate performance or condition monitoring on the SSF HVAC system was a performance deficiency (PD). This PD was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective in that the licensee failed to demonstrate effective control of the SSF HVAC system through appropriate preventive maintenance. The finding was determined to have very low safety significance (Green) because it did not result in the actual loss of safety function of one or more non-Technical Specification equipment trains, designated as risk-significant per 10CFR50.65, for greater than 24 hours. The cause of the finding was directly related to the human performance crosscutting aspect associated with resources, for the licensee not ensuring their maintenance rule procedures were adequate to provide clear and accurate directions on how to classify functional failures. [H.2(c)].

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

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

EQ components not installed in the as-qualified configuration

A NRC-identified non-cited violation was identified for the licensee's failure to comply with 10 CFR 50.49(f) in that Rosemount transmitters, Limitorque valve actuators, and electrical penetration assemblies (EPAs), each an item of electric equipment important to safety, were found installed in a configuration other than the tested configuration and the licensee did not establish the qualification of the installed configuration.

The failure to comply with the requirements of 10 CFR 50.49(f) was a performance deficiency. The performance deficiency was more than minor in that if left uncorrected it could have adversely affected indication required by operators to diagnose and respond to an event or resulted in unexpected equipment response. The inspectors determined that a Phase 2 evaluation was required for the Rosemount transmitters with plastic shipping plugs installed because of a potential loss of safety function of the Low Pressure Injection system. The inspectors performed a Phase 2 and concluded that the finding was of very low safety significance (Green) because the ability to achieve hot shutdown was not affected. The other three conditions screened as Green in Phase 1 because the finding did not result in the actual loss of function of the transmitters with improperly torqued covers, the Limitorque actuators, or EPAs. The finding involved the cross-cutting area of Human Performance under the Procedures aspect of the Resources component in that the licensee failed to develop complete and accurate procedures and work packages for the installation and periodic maintenance of Rosemount transmitters. (H.2.c) (Section 4OA2.2)

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

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Unqualified electrical penetration assemblies

An NRC-identified non-cited violation of 10 CFR 50.49(l) was identified when the licensee did not follow the requirements for replacing components within EPAs when existing components qualified under the Division of Operating Reactors, Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors (DOR Guidelines), dated November 1979, were combined with replacement components qualified to current standards. The outboard Viking EPA terminal box and associated terminal blocks, not qualified under current standards, were left in 86 EPAs that had been upgraded and made available for use in safety-related or environmentally-qualified applications.

The failure to replace or to justify reasons to the contrary for not replacing the Viking EPA outboard terminal box and terminal blocks was a performance deficiency. The performance deficiency was more than minor because if left uncorrected, the licensee could have used the non 10 CFR 50.49 qualified terminal blocks as an electrical pathway for environmentally qualified or safety related loads. The inspectors completed a Phase 1 screening and determined that the finding was of very low safety significance (Green) because the finding did not result in the actual loss of function of the equipment receiving signals or power supplied through the modified EPAs. The finding directly involved the cross-cutting area of Human Performance under the Proper Maintenance Practices aspect of the Resources component in that the terminal boxes and associated terminal blocks which were not qualified under current standards were left in EPAs that had been upgraded and made available for use in safety-related or environmentally-qualified applications. (H.2.a)

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

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance:  May 19, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to take required compensatory actions for 1 and 2 RIA-40 condenser off-gas radiation monitor inoperability

Green: An NRC-identified Non-Cited Violation (NCV) of Technical Specification 5.4.1.d, for failure to follow procedures NSD 513, "Primary to Secondary Leak Monitoring Program," and OP/0/A/1106/031, "Primary to Secondary Leak Rate Monitoring and Instrumentation," which required compensatory actions and compensatory sampling during certain times when RIA-40 (Condenser Off-Gas Radiation Monitor) was out of service. This violation was entered into the licensee's corrective action program under PIP O-10-06151.

The failure to recognize that the condenser off-gas radiation monitors were inoperable was a performance deficiency. This performance deficiency is more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective in that the capability to detect, quantify, and respond to primary to secondary leakage was degraded. The significance of this was determined to be of very low safety significance (Green) because the finding did not result in a loss of safety function. This finding had a cross-cutting aspect in the area of Problem Identification and Resolution under the Corrective Action Program component because the licensee failed to recognize that 1, 2 RIA-40 were inoperable, and to take appropriate corrective actions to address the issue in a comprehensive manner commensurate with its safety significance and complexity [P.1 (d)] (Section 2RS6).

Inspection Report# : [2011016](#) (pdf)

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

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