Oconee 1
3Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jul 02, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Comply with Procedure OMP 1-18 by Overriding Abnormal Procedure Requirements Beyond the Point of Placing the Plant in a Safe/Stable Condition (Section 4OA5.2b.(1))
The team identified a non-cited violation of Technical Specification 5.4.1 for failure to properly implement procedure OMP 1-18, Implementation Standard During Abnormal and Emergency Events, which allows actions to be taken outside of procedures during abnormal or emergency events only to place the plant in a safe/stable condition. Contrary to the requirements of OMP 1-18, the licensee took actions outside abnormal operating procedures (APs) on two occasions during Unit 1 cooldown and depressurization activities, after the plant was already in a safe/stable condition on low pressure injection (LPI) decay heat removal (DHR). The first occasion involved the continued operation of reactor coolant pump (RCP) 1A2 (for reactor coolant system degas and crud burst) at vibration levels above the trip setpoint in AP/1/A/1700/016, Abnormal Reactor Coolant Pump Operation, on April 12, 2008, after establishing LPI DHR. Approximately 2½ hours later, the 1A2 RCP seals began to fail and a seal leak developed. The second occasion involved reactor building (RB) iodine detector 1RIA-48 that was discovered in alarm on April 13, 2008, due to the 1A2 RCP seal leak that was in progress. The RB evacuation alarm was not sounded as required by procedure AP/1/A/1700/018, Abnormal Release of Radioactivity, and some personnel were allowed to continue working inside the RB. As such, these actions had the potential to increase the radiological risk to plant personnel if an unexpected change in the 1A2 RCP seal leak had occurred while personnel were inside the RB, and with the equipment hatch removed. The licensee entered this issue into the corrective action program.

Failure to comply with procedure OMP 1-18 is a performance deficiency. The finding is considered to be more than minor because the 1A2 RCP seal failures/leakage affected the initiating events cornerstone objective to limit the likelihood of those events that challenge critical safety functions during shutdown. The finding was determined to be of very low safety significance, based on the Phase 1 screening criteria in IMC 0609, because the 1A2 RCP seal leak would likely have not affected other mitigation systems or caused a loss of their safety function. This finding has a cross-cutting aspect in the Decision Making component of the Human Performance area because the licensee used nonconservative assumptions when making decisions to take actions outside approved procedures [NRC Inspection Manual Chapter 0305, Section 06.07c., H.1(b)]. (Section 4OA5.2b.(1))

Inspection Report# : 2008008 *(pdf)*

Significance: G Jul 02, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Enter AP/1/A/1700/026 for a Loss of RCS Inventory from a Seal Leak Which Developed on the 1A2 RCP (Section 4OA5.2b.(2))
The team identified a non-cited violation of Technical Specification 5.4.1 for failure to fully comply with procedure SOMP 04-02, Procedure Use and Adherence, during Unit 1 cooldown and depressurization activities. Specifically, AP/1/A/1700/016, Abnormal Reactor Coolant Pump Operation, was not properly implemented for identified seal failures on reactor coolant pumps (RCPs) 1A2 and 1B2, and a procedure change to AP/1/A/1700/016 was not processed prior to restarting RCP 1B2, as required by Nuclear System Directive (NSD) 703, Administrative Instructions for Technical Procedures. These actions resulted in missed opportunities to identify the progression of the 1A2 RCP seal leak and the RB iodine detector which was in alarm. The licensee entered this issue into the corrective action program.

Failure to comply with procedures AP/1/A/1700/016 and NSD 703 is a performance deficiency. The finding is considered to be more than minor because not complying with the abnormal procedure used to address the RCP seal failures affected the initiating events cornerstone objective to limit the likelihood of those events that challenge critical safety functions during shutdown. The finding was determined to be of very low safety significance, based on the Phase 1 screening criteria in IMC 0609, because the 1A2/1B2 RCP seal failures and the 1A2 RCP seal leak would likely have not affected other mitigation systems or caused a loss of their safety function. This finding has a cross-cutting aspect of procedural compliance for failure to follow procedures, as described in the Work Practices component of the Human Performance cross-cutting area [NRC Inspection Manual Chapter 0305, Section 06.07c., H.4(b)]. (Section 4OA5.2b.(3))

Inspection Report# : 2008008 *(pdf)*

Mitigating Systems

Significance: G Jul 02, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Fully Comply With Procedure SOMP 04-02 and Fully Implement or Formally Change the Requirements of AP/1/A/1700/016 (Section 4OA5.2b.(3))
The team identified a non-cited violation of Technical Specification 5.4.1 for failure to properly implement procedure SOMP 04-02, Procedure Use and Adherence, during Unit 1 cooldown and depressurization activities. Specifically, the licensee made the decision not to enter procedure AP/1/A/1700/026, Loss of Decay Heat Removal, on two separate occasions when a condition required for entry was met (i.e., loss of reactor coolant system inventory while on LPI DHR), due to the seal leak which developed on the 1A2 RCP. These actions had the potential to impact the radiological risk to plant personnel if an unexpected change in the 1A2 RCP seal leak had occurred while personnel were inside the RB, and with the equipment hatch removed. The licensee entered this issue into the corrective action program.

Failure to comply with abnormal procedure AP/1/A/1700/026 is a performance deficiency. The finding is considered to be more than minor because not complying with the abnormal procedure affected the mitigating systems objective to ensure the availability and capability of the LPI DHR system to respond to a RCP seal leak initiating event to prevent undesirable consequences. The finding was determined to be of very low safety significance, based on the Phase 1 screening criteria in IMC 0609, because the finding did not represent a loss of the LPI DHR system safety function. This finding has a cross-cutting aspect in the Decision Making component of the Human Performance area because the licensee's decisions not to enter AP/1/A/1700/026 with a known RCP seal leak were based on judgement rather than the systematic process in procedure AP/1/A/1700/026 [NRC Inspection Manual Chapter 0305, Section 06.07c., H.1(a)]. (Section 4OA5.2b.(2))

Inspection Report# : 2008008 *(pdf)*

Significance: G Jul 02, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Comply with Procedure OMP 2-01 When Monitoring Plant Parameters (Section 4OA5.2b.(4))
The team identified a non-cited violation of Technical Specification 5.4.1 for failure to comply with procedure OMP 2-01, Duties and Responsibilities of On-Shift Operations Personnel, on two occasions during Unit 1 cooldown and depressurization activities. More specifically, plant cooldown was not performed within the limits of station procedures and response to a reactor building radiation alarm associated with a reactor coolant pump seal leak was untimely. These actions had the potential to impact the integrity of reactor coolant system components and increase the radiological risk to plant personnel. The licensee entered these issues into their corrective action program.

Failure to comply with OMP 2-01 is a performance deficiency. This finding is considered to be more than minor because it impacted the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance, based on the Phase 1 screening criteria in IMC 0609, because the cooldown limit did not exceed Technical Specification limits and radiation protection personnel determined from sampling that the RB radiation levels were minimal. This finding has a cross-cutting aspect in the Work Practices component of the Human Performance area because the licensee failed to maintain effective supervisory and management oversight of work activities [NRC Inspection Manual Chapter 0305, Section 06.07c., H.4(c)]. (Section 4OA5.2.b(4))

Inspection Report# : 2008008 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Required Pressure Tests Not Performed (Section 1R08.1)
The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.55a(g)(4) for the failure to perform periodic leakage testing of Class 1 portions of low pressure injection system during the third inspection interval of the Unit 1 Inservice Inspection Program as required by Section XI of the American Society of Mechanical Engineers (ASME) Code for the third 10-year Inservice Inspection interval. The licensee entered this issue into their Corrective Action Program (CAP) for resolution.

This finding is more than minor because it affected the Equipment Performance attribute of the Mitigating Systems Cornerstone objective, in that there were no additional measures taken to perform the required pressure testing (or obtain regulatory relief within the time limits of the regulation) to ensure the availability, reliability, and capability of a system that responds to initiating events to prevent undesirable consequences. This finding is of very low safety significance because it was not a design issue resulting in a loss of operability, did not represent an actual loss of a system's safety function, did not result in exceeding a Technical Specification (TS) allowed outage time, and did not affect external event mitigation. This finding has a cross-cutting aspect of Work Control in the area of Human Performance, as identified in NRC Manual Chapter 0305, Section 06.07 [H.3.(b)]. (Section 1R08.1)

Inspection Report# : 2008003 *(pdf)*

Significance: G Mar 31, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Installation of SSF DG Field Flash Relay Cover (Section 1R19)
A self-revealing finding (FIN) was identified for failure to implement self-checking during Standby Shutdown Facility (SSF) diesel generator (DG) field flash relay cover reinstallation, resulting in a failure of the relay during post maintenance testing and subsequent loss of the electronic governor.

The inspectors determined that the licensee's failure to correctly install the SSF DG field flash relay cover was a performance deficiency. The finding was considered to be more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The finding was determined to be of very low safety significance (Green), based on the Phase 1 screening criteria found in MC 0609, Appendix A, Attachment 1, in that the additional 15.6 hours of SSF unavailability resulting from the deficiency was less than the TS allowed outage time. Additionally, the Oconee Phase 2 pre-solved table for exposure times of less than three days yields a Green result for the SSF DG. This finding has a cross-cutting aspect of human error prevention techniques [H.4.a], as described in the work practices component of the human performance cross-cutting area. (Section1R19)

Inspection Report# : 2008002 *(pdf)*

Significance: G Mar 14, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control in the Translation of Design Basis Information into Procedure for Draining and Nitrogen Purging the RCS (Section 1R21.2.2)
The inspectors identified a finding of very low safety significance involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, the licensee failed to verify the applicability of design basis information, related to critical vortex height to assure adequate low pressure injection (LPI) pump suction conditions, before translating that information into the shutdown operations procedure for draining the reactor coolant system.

This finding is greater than minor because if left uncorrected, the finding would become a more significant safety concern. In particular, the station routinely uses older calculations, test information, and analyses to establish operator action or alarm set points, support operability determinations, or change the design of the plant. If the applicability of that information is not verified for the system configuration and conditions under review, the quality of that engineering product could be compromised, resulting in a significant safety concern. The finding was determined to be of very low significance, via Manual Chapter (MC) 0609, Appendix G, Attachment 1, Shutdown Operations Significance Determination Process (SDP), Phase 1 because it did not significantly degrade the station capability to recover decay heat removal. The cause of the finding is related to the cross-cutting area of problem identification and resolution, specifically with respect to corrective action, because the licensee did not thoroughly evaluate the previous similar finding in the 2006 Oconee Component Design Bases Inspection (CDBI) such that the resolution adequately addressed causes and extent of condition (MC 0305, aspect P.1.c). [Section 1R21.2.2]
Inspection Report# : 2008006 *(pdf)*

Significance: G Mar 14, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Verification of Local Manual Operating Capability for EFW Flow Control Valves (Section 1R21.2.6)
The inspectors identified a finding of very low safety significance involving a NCV of 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, the licensee failed to establish measures to verify the design capability for local manual handwheel operation of the emergency feedwater (EFW) flow control air operated valves (AOVs). Local manual operation was an alternate method of controlling EFW
flow specified in station emergency procedures.

The finding is more than minor because it is associated with the design control attribute of the Mitigating System Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low

safety significance since it did not result in a loss of system safety function. Specifically, the licensee performed a technical evaluation during the inspection which demonstrated that a plant operator would be able to successfully cycle the valves using the manual handwheel. [Section 1R21.2.6]
Inspection Report# : 2008006 *(pdf)*

Barrier Integrity

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

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