

Vogtle 2

3Q/2015 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2015

Identified By: NRC

Item Type: FIN Finding

NRC Biennial Written Examinations Did Not Meet Qualitative Standards

An NRC-identified finding was identified when between 20 and 40 percent of the written examination questions administered to licensed operators during the biennial requalification examination did not meet the requirements of NMP-TR-424, "Licensed Operator Continuing Training Exam Development," and NUREG-1021, "Operator Licensing Examination Standards For Power Reactors," Revision 10

The inspectors determined that the failure to ensure that biennial written examinations met the qualitative standards for written examinations was a performance deficiency (PD). The PD was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective in that the quality of biennial written examinations potentially impacted the licensee's ability to appropriately evaluate licensed operators. The significance of the finding was determined to be Green because between 20 and 40 percent of the questions reviewed did not meet the standard. No cross-cutting aspect was identified that would be considered a contributor to the cause of the finding.

Inspection Report# : [2015003](#) (*pdf*)

Significance: G Sep 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Maintain Requalification Examination Integrity

An NRC-identified Non-cited Violation (NCV) of 10 CFR 55.49, "Integrity of examinations and tests," was identified for the licensee's failure to adhere to requirements of NMP-TR-424, License Operator Continuing Training Exam Development, Version 3.1. NMP-TR-424 was the procedure that the licensee used to implement industry standard ACAD 07-001, Guidelines for the Continuing Training of Licensed Personnel. ACAD 07-001 is a methodology which can be used to fulfill 10 CFR 55.59(c), "Requalification program requirements" and 10 CFR 55.4, "Systems approach to training (SAT)." This violation has been entered into the licensee's corrective action program (CAP) as condition report (CR) 10115484.

The inspectors determined that the licensee's failure to adhere to overlap standards in NMP-TR-424 was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the Human Performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective in that the failure to adhere to examination overlap standards adversely affected the quality of the administration of the operating exams. The finding was determined to be of very low safety significance (Green) because there was no evidence that a licensed operator had actually gained an unfair advantage on an examination

required by 10 CFR 55.59. The finding was directly related to the cross-cutting aspect of procedure adherence of the cross-cutting area of Human Performance because the training staff did not follow the guidance for all licensed operators' 2014 annual operating exam [H.8].

Inspection Report# : [2015003](#) (*pdf*)

Significance:  Jul 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Fully Close and Latch Plant Fire Doors

An NRC-identified Green non-cited violation of Vogtle Units 1 and 2 Operating License Conditions 2.G, was identified for the licensee's failure to ensure that fire doors V22108L1A67, V12111L1238, and V12111L1A41 in 3-hour rated fire barriers were fully closed and latched, as required by the approved fire protection program (FPP) and National Fire Protection Association (NFPA) Code 80-1983, Fire Doors and Windows (Vogtle NFPA Code of Record). The licensee took corrective actions and declared fire door V22108L1A67 inoperable and established a roving fire watch. The inoperable door was entered into the licensee's corrective action program as condition report (CR) 10067247 and was repaired the next day. For doors V12111L1238 and V12111L1A41, the licensee immediately removed materials that were interfering with the latching of the doors and entered these into their corrective action program as CR 10096004 and CR10096008 respectively. Because these two conditions were corrected as soon as they were brought to the licensee's attention by the inspectors, no fire watch was required to be established.

The licensee's failure to ensure the three fire doors were fully closed and latched as required by the approved FPP and NFPA Code 80-1983 was determined to be a performance deficiency. This performance deficiency was more than minor because it affected the reactor safety mitigating systems cornerstone attribute of protection against external events (i.e., fire) and adversely affected the fire protection defense-in-depth element involving fire confinement and control of fires that do occur to protect systems important to safety. The finding was screened in accordance with NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings," which determined that an IMC 0609, Appendix F, "Fire Protection Significance Determination Process," review was required as the finding involved the ability to confine a fire. The finding category of "Fire Confinement" was assigned, based upon that element of the FPP being impacted. Using IMC 0609, Appendix F, Attachment 1, "Fire Protection Significance Determination Process Worksheet," the inspectors determined that the finding was of very low safety significance (Green) at Task 1.4.3, Question C, based upon observation that a fully functioning, automatically actuated, fire suppression system was installed on both sides of fire doors V12111L1238 and V12111L1A41 and on one side of fire door V22108L1A67. The inspectors determined that the finding had a cross-cutting aspect of "Procedure Adherence" in the Human Performance area because individuals did not follow processes and procedures for ensuring that fire doors were properly closed and latched after passing through the doors [H.8]. [Section 1R05.02.b(1)]

Inspection Report# : [2015007](#) (*pdf*)

Significance:  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Identify and Correct Degraded Foreign Material Cover Plates for the NSCW Pump Wells

An NRC-identified, Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the licensee's failure to identify and correct conditions adverse to quality associated with the cover plates for the nuclear service cooling water (NSCW) system pumps' shaft well access openings. Specifically, the licensee failed to identify degraded conditions on the NSCW pump well cover plates (e.g. openings from uncovered holes and degraded periphery) that could result in foreign material (FM) entering the pumps' well and impact cooling water flow to safety related heat exchangers. The licensee entered the issue into their corrective action program (CAP) under CR10033287, CR10085803 and CR10091171, installed temporary FM exclusion covers, and

removed debris near the pump cover wells.

The finding was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the openings in the degraded pump well covers could allow FM to enter the NSCW system and adversely affect cooling water flow to essential component coolers. The finding was evaluated using the mitigating systems cornerstone column of Attachment 4 and Exhibit 2 of Appendix A to Inspection Manual Chapter 0609, "Significance Determination Process," (SDP) dated April 29, 2015. The finding was of very low safety significance (i.e. Green) because the inspectors answered "No" to all of the screening questions in the exhibit. The inspectors determined the finding had a cross-cutting aspect of "Evaluation" in the Problem Identification and Resolution (PI&R) area because the organization did not thoroughly evaluate the NSCW debris-blocking event of the 1B safety injection (SI) lube oil (LO) cooler, in February 27, 2015, to ensure that resolutions addressed causes and extent of conditions commensurate with their safety significance (P.2). (Section 1R12)

Inspection Report# : [2015002](#) (*pdf*)

Significance:  Mar 31, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Implement Maintenance Procedure for Containment Spray Pump

A self-revealing NCV of TS 5.4.1.a, "Procedures," was identified for the licensee's failure to verify that the total indicated run-out (TIR) for the Unit 2 'B' train containment spray pump was within the limits of procedure 27052-C, Gould 3415 Pump Maintenance Procedure, Ver. 6.0. This violation was entered into the licensee's corrective action program as CR 855892.

The failure to implement maintenance procedure 27052-C was a performance deficiency. The performance deficiency was more than minor because it was associated with the SSC and Barrier Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective in that the failure to verify the 2B CS pump shaft TIR was within the procedural and vendor recommendation limits affected the CS system availability and reliability. The finding to be of very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, or heat removal components, and it did not involve a reduction in function of hydrogen igniters in the reactor containment. No cross-cutting aspect was assigned to this finding because the inspectors determined that the cause of the finding was not indicative of current licensee performance.

Inspection Report# : [2015001](#) (*pdf*)

Significance:  Dec 31, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Correctly Implement Control Rod Drive System Procedure During Reactor Startup Activities

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4.1.a, "Procedures," was identified for the licensee's failure to implement system operating procedure SOP 13502-2, "Control Rod Drive and Position Indication System," version 42, when resetting the control rod drive system bank overlap unit (BOU). This caused an out-of-sequence control rod insertion that resulted in operators manually tripping the reactor. The licensee correctly reset the BOU prior to restarting the unit and enhanced the procedural guidance for resetting the BOU. The violation was entered into the licensee's corrective action program as condition report (CR) 879125.

The performance deficiency (PD) was more than minor because it was associated with the Configuration Control and Equipment Performance attributes of the Mitigating Systems cornerstone and adversely affected the cornerstone objective in that improper rod control system equipment lineup affected the licensee's ability to control reactivity. The

finding screened as Green because the finding did not affect reactor protection system trip capability or result in an unintentional positive reactivity addition. The inspectors determined the finding had a cross-cutting aspect of “training” in the human performance area because the organization had not provided sufficient practical or hands-on training on resetting the BOU. [H.9]

Inspection Report# : [2014005](#) (*pdf*)

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Restore Nuclear Service Cooling Water Manual Valves to their Required ‘Locked-Open’ Position

The NRC identified an NCV of TS 5.4.1.a, “Procedures” for the licensee’s failure to properly implement administrative control procedure 10019-C, “Control of Safety Related Locked Valves,” version 15.3. As a result, two nuclear service cooling water (NSCW) manual valves were not in their required ‘locked-open’ position. The licensee restored the valves to their ‘locked-open’ position. The violation was entered into the licensee’s corrective action program as condition report 880824.

The performance deficiency was more than minor because it was associated with the Equipment Performance and Configuration Control attributes of the Mitigating Systems cornerstone and adversely affected the cornerstone objective in that the throttled position of the valves reduced the cooling capability of the associated mitigating systems heat exchangers and the unsecured condition reduced the safety-related locked valve program’s objective to control and maintain the configuration of valves required to be in a specified position. The finding screened as Green because the flow rates associated with the valves’ throttled position were determined to be sufficient to maintain the supported systems operability. The inspectors determined the finding had a cross-cutting aspect of “documentation” in the human performance area because the organization provided inaccurate documentation of the valves’ manipulation log sheet. [H.7]

Inspection Report# : [2014005](#) (*pdf*)

Significance:  Dec 31, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Follow Procedures Renders Safety Related Battery Charger Inoperable

A self-revealing NCV of TS 5.4.1.a, “Procedures” was identified for the licensee’s failure to properly implement approved maintenance procedures and work order instructions and inadvertently removed the 2AD1CB safety-related battery charger from service while attempting to perform routine battery surveillance on the 2CD1B battery. Upon discovery, the licensee immediately stopped the work and returned the battery charger to service. The licensee entered the condition into their corrective action program as CR 10002493.

The performance deficiency 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 opening of the power supply breaker to the incorrect battery charger (2AD1CB) resulted in the charger being inoperable for a total of 30 minutes. The inspectors evaluated the finding using IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” issued June 19, 2012. Since the inspectors answered “No” to all of the Exhibit 2, Mitigating Systems Screening Questions, the inspectors concluded that the finding was (Green). The inspectors determined the finding had a cross-cutting aspect of “Challenge the Unknown” in the Human Performance area because the station operator proceeded in the face of uncertainty. [H.11]

Inspection Report# : [2014005](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: **G** Sep 30, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Unauthorized Entry into a High Radiation Area

A self-revealing NCV of Technical Specification (TS) 5.7.1, "High Radiation Area," for an unauthorized entry into a high radiation area (HRA). The radiological aspects were not discussed in the pre-job brief, the health physics (HP) technician in containment did not challenge the crew as to whether or not they received their HRA briefing, and the crew did not follow adequate radiological safety practices, such as reading instructions on the HRA posting prior to entry and not leaning against piping. The licensee entered this issue into the CAP as CR 870060

The entry into a HRA without meeting the entry requirements specified in T.S. 5.7.1 was a performance deficiency. This performance deficiency was more than minor because it was associated with the Occupational Radiation Safety cornerstone attribute of Human Performance and adversely affected the cornerstone objective in that workers who enter HRAs with inadequate knowledge of current radiological conditions could receive unintended occupational exposures. The finding was evaluated using the Occupational Radiation Safety Significance Determination Process and determined to be of very low safety significance (Green). This finding does not involve a cross-cutting aspect because it is not current license performance.

Inspection Report# : [2015003](#) (*pdf*)

Public Radiation Safety

Significance: **W** Dec 31, 2014

Identified By: Self-Revealing

Item Type: VIO Violation

Shipment of a Type B quantity of RAM in a Type A Container

A self-revealing, preliminary White, AV of Technical Specification (TS) 5.4.1., Procedures, occurred on June 24, 2014, when a Type A shipping cask containing Type B radioactive waste (spent resin) was shipped by Southern Nuclear Operating Company (SNC) from the Vogtle Electric Generating Plant (VEGP), Units 1 and 2, to the Energy Solutions radioactive waste processing facility located in Barnwell, South Carolina. The serial number of the High Integrity Container (HIC) containing the spent resin was not verified when it was removed from its storage process shield and placed in the shipping cask, with the result that a HIC with a Type

B quantity of resin was transported in a Type A shipping cask. This error resulted in multiple violations of NRC and Department of Transportation (DOT) regulations, which are included in Enclosure 2. The licensee entered the event in the corrective action program (CAP) as condition report (CR) 831652. Immediate corrective actions included suspension of radioactive waste shipments at Southern Nuclear Operating Company (SNC) facilities, and requalification of plant Vogtle radioactive shippers and oversight personnel.

The licensee's failure to document the location of radioactive waste stored in the process shields, as required by licensee procedure 46111-C, "Storage of Radwaste in Outdoor Process Shields," was a performance deficiency (PD). The PD was more than minor because it was associated with the public radiation safety cornerstone attribute of Program & Process (transportation program), and adversely impacted the cornerstone objective of ensuring adequate protection of public health and safety from exposure to RAM released into the public domain. A Type B quantity of material left the licensee's facility and entered the public domain in an inadequate (Type A) container. The inspectors determined this finding has a cross-cutting aspect of in the Documentation component of the Human Performance area, because the licensee did not create and maintain complete, accurate, and up-to-date documentation used in preparing shipments of radioactive waste.

The NRC performed a supplemental inspection to assess the adequacy of the licensee's evaluation, extent of condition/cause review and associated corrective actions. The inspectors determined that the licensee performed an adequate evaluation of the specific performance issue and that comprehensive corrective actions were completed to address each of the specific causes.

(IR# 05000424, 425/2015009 dated September 15, 2015)

Inspection Report# : [2014009](#) (*pdf*)

Inspection Report# : [2015009](#) (*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: N/A Apr 03, 2015

Identified By: NRC

Item Type: FIN Finding

Biennial PI&R Summary

The inspectors concluded that, in general, problems were properly identified, evaluated, prioritized, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution, as evidenced by the relatively few number of deficiencies identified by external organizations (including

the NRC) that had not been previously identified by the licensee, during the review period. Generally, prioritization and evaluation of issues were adequate, formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems were acceptable. Overall, corrective actions developed and implemented for issues were generally effective and implemented in a timely manner.

The inspectors determined that overall, audits and self-assessments were adequate in identifying deficiencies and areas for improvement in the CAP, and appropriate corrective actions were developed to address the issues identified. Operating experience usage was found to be generally acceptable and integrated into the licensee's processes for performing and managing work and plant operations.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP to resolve those concerns.

Inspection Report# : [2015008](#) (*pdf*)

Last modified : December 15, 2015