

Fort Calhoun 2Q/2006 Plant Inspection Findings

Initiating Events

G**Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Potential Missiles During adverse Weather Conditions

A noncited violation was identified for failure of operators to follow an abnormal operating procedure as required by Technical Specification 5.8.1.a. This failure resulted in the station not identifying that loose material had the potential to become airborne during high winds and potentially cause a loss of off-site power. This finding has a crosscutting aspect in the area of problem identification and resolution because the licensee failed to identify the condition despite numerous opportunities to do so.

This finding was determined to be greater than minor in that it affected the "Protection Against External Factors" attribute of the Initiating Events cornerstone. Further, this condition could also reasonably be viewed as a precursor to a significant event. The inspectors evaluated this finding using Manual Chapter 0609, Appendix A and determined that it was of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. This condition has been entered into the licensee's corrective action program as Condition Report 200602454.

Inspection Report# : [2006003\(pdf\)](#)**G****Significance:** Jun 30, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

Reactor Trip Caused by Inadequate Operator Control During Low Power Operations

A self-revealing finding was identified for inadequate operator control of plant parameters, which resulted in an unplanned reactor trip during testing. The cause of the finding is related to the crosscutting element of human performance in that the operator's performance directly led to the plant transient.

The finding was greater than minor because it had an actual impact of tripping the reactor, which is a precursor to a significant event. The performance deficiency was also similar to example 4.b in Inspection Manual Chapter 0612, Appendix E. The finding, which is under the Initiating Events cornerstone, was of very low safety significance because it did not contribute both to the likelihood of a reactor trip and that mitigation equipment would not be available. This condition has been entered into the licensee's corrective action program as Condition Report 200500773.

Inspection Report# : [2006003\(pdf\)](#)

Mitigating Systems

G**Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Nonfunctional Fire Barrier Separating Corridor 23 (Fire Area 20.1) and Room 61 (Fire Area 20.4)

A noncited violation of Technical Specification 5.8.1.c, Fire Protection Program Implementation, was identified for the failure to ensure that all fire barriers protecting safety-related areas were functional. Specifically, Fire Door 1007-10 between Fire Area 20.1 and Fire Area 20.4 was chained opened and would have allowed flame propagation between Corridor 26 and Room 61.

This finding was more than minor since it was associated with the protection against external factors attribute of the mitigating systems cornerstone. Using the Significance Determination Process, Manual Chapter 0609, Appendix F, the finding was determined to be in the Fire Confinement category because the fire barrier separated one fire area from another. A high degradation rating was assigned because the fire barrier was defeated by chaining open the fire door. The finding was characterized as having very low safety significance. Although the exposed fire area (Corridor 26) contains safe shutdown equipment, the exposing fire area (Room 61) does not. Therefore, a fire in Room 61 that spreads to Corridor 26 would not affect safe shutdown. The same systems and components available to achieve safe shutdown in the case of a fire in Corridor 26 will be available to perform the safe shutdown for a fire that spreads from Room 61 into Corridor 26. This condition has been entered into the licensee's corrective action program as Condition Report 200602029.

Inspection Report# : [2006003\(pdf\)](#)

G**Significance:** Dec 31, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to identify improperly sized reactor coolant pump seal O-rings

A noncited violation (NCV) of Criterion XVI, "Corrective Action," was identified for a failure to identify and correct a condition adverse to quality on a reactor coolant pump seal when another pump was disassembled for maintenance. Specifically, the licensee did not recognize that a material nonconformance (inadequately sized O-rings) was applicable to components installed in the plant. Installation of the incorrect O-ring resulted in subsequent failure of the reactor coolant pump seal.

This finding is more than minor because it affected the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was assessed using Appendix G, "Shut-down Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process." Using Checklist 3, "PWR Cold Shut-down and Refueling Operation - RCS Open and Refueling Cavity Level < 23' Or RCS Closed and No Inventory in Pressurizer, Time to Boiling < 2 hours," in Attachment 1, "Phase 1 Operational Checklists for both PWRs and BWRs," of Appendix G of Manual Chapter 0609, this finding did not require quantitative assessment and, therefore, screened as a Green finding. A contributing cause of the finding is related to the crosscutting element of problem identification and resolution in that engineering did not identify that the reactor coolant pump seal was degraded/nonconforming despite several indications. This condition has been entered into the licensee's corrective action program.

Inspection Report# : [2005005\(pdf\)](#)**G****Significance:** Dec 31, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Low pressure safety injection water hammer events caused by inadequate procedure

A noncited violation of Criterion V, "Instructions, Procedures and Drawings," was identified for an inadequate procedure that resulted in several water hammer events on the low pressure safety injection system and related damage to safety-related components. The licensee's procedure resulted in allowing reactor coolant to leak back into the low pressure safety injection system. In addition to the crosscutting aspect of human performance related to procedure development, this issue had crosscutting aspects related to problem identification and resolution in that the licensee failed to recognize that the back leakage had established conditions that were conducive to water hammer. The licensee then vented the system using the low pressure safety injection pump, which resulted in three water hammer events.

The licensee's inadequate procedure and poor problem identification, which resulted in three low pressure safety injection water hammer events, constituted a performance deficiency and a finding. This finding is greater than minor because it could be reasonably viewed as a precursor to a significant event (i.e., the loss of low pressure safety injection when called upon to mitigate an accident). Additionally the finding affected the availability and reliability of mitigating system equipment (Flow Instrument FI-328). This finding was evaluated using the significance determination process and was determined to be a finding of very low safety significance because the finding was: (1) not a qualification deficiency confirmed to result in a loss of function, (2) did not result in a loss of safety system function, (3) did not represent an actual loss of safety function of a single train, (4) did not represent an actual loss of safety function of risk significant equipment >24 hours, and (5) did not screen as risk significant due to external events. The inspectors also determined that the cause of the finding was related to a failure to identify a condition adverse to quality. This condition has been entered into the licensee's corrective action program.

Inspection Report# : [2005005\(pdf\)](#)**G****Significance:** Nov 10, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Take Prompt Corrective Action for Fire Protection Program Deficiencies

Three examples of a Green noncited violation of License Condition 3.D of the Fort Calhoun Station Operating License were identified for the failure to take prompt corrective action to correct deficiencies adverse to fire protection, as required in the NRC-approved fire protection program. License Condition 3.D states that the licensee shall implement and maintain in effects all provisions of the approved fire protection program as described in the updated safety analysis report. The fire hazards analysis manual, which is described in the updated safety analysis report, states in Section 3.7.9 that the quality assurance program assures that conditions adverse to fire protection, such as failures, malfunctions, deficiencies, deviations, defective components, uncontrolled combustible material, and non-conformances are promptly identified, reported and corrected. This violation has cross-cutting aspects related to Problem Identification and Resolution since for the three examples, the licensee failed to promptly correct conditions adverse to fire protection by completing corrective actions for NRC identified noncited violations from previous inspections.

Example 1: The licensee failed to take prompt corrective action to resolve an NRC-identified noncited violation for the failure to meet the requirements of Section III.G.2 of Appendix R to 10 CFR Part 50 for ensuring that one redundant train of equipment required to achieve and maintain hot shutdown conditions remains free of fire damage. The NRC issued Noncited Violation 50-285/0001-01, on May 9, 2000. The licensee instituted fire watches in the affected area (Fire Area 32) and entered the finding into the corrective action program as Condition Report 200000207.

The licensee determined that the optimum approach would be a combined approach that utilized the rerouting of cables, manual actions and cold shutdown repairs to achieve compliance. Only instrumentation and control cables would be rerouted. The compliance for 480 volt power cables would be accomplished using manual operator actions and meeting the original exemption conditions. The 4160 volt power cables are required for cold shutdown and compliance would be achieved by repair of the required cables within 72 hours of a fire.

During the Spring 2005 Refueling Outage, the licensee implemented a modification that rerouted twelve instrumentation and control cables out of Fire Area 32 to separate fire areas in the switchgear rooms and lower/upper penetration rooms. However, for the 4160 volt power cables, a procedure for the cold shutdown repairs and identification of the required materials had not been completed by the end of this inspection.

The performance deficiency was a failure to meet the requirements of Section III.G.2 of Appendix R to 10 CFR Part 50 for ensuring that one redundant train of equipment required to achieve and maintain hot shutdown conditions remains free of fire damage. This finding affected the mitigating systems cornerstone and was considered more than minor since it affected the cornerstone attribute of Protection Against External Factors (i.e., fire). This finding had been evaluated using the significance determination process and had been determined to be of very low safety significance (green). The team verified that changes to the conditions in the area would not have increased the safety significance of the finding and that the fire watches that were implemented in January 2000 were still being conducted.

Example 2: The licensee failed to take prompt corrective action to resolve an NRC-identified noncited violation of Technical Specification 5.8.1.c, Fire Protection Program Implementation, for the failure to implement procedures to ensure that fire barriers protecting safety-related areas were functional. NRC Inspection Report 05000285/2004003 documented a Green noncited violation as a result of Fire Barrier 69-F-24 being a nonfunctional fire barrier that separated Fire Area 20.5 (Room 62 - Ion Exchanger Area) and Fire Area 20.7 (Room 69 - Auxiliary Building Ventilation Room, Elevation 1025). The licensee instituted fire watches in the affected areas and entered the finding into the corrective action program as Condition Report 200401063. The inspectors found the condition still existing without repairs or engineering evaluation to accept the condition as is.

The performance deficiency was the failure to implement procedures to ensure that fire barriers protecting safety-related areas were functional. This finding affected the mitigating systems cornerstone and was considered more than minor since it affected the cornerstone attribute of Protection Against External Factors. Based on Manual Chapter 0609, Appendix F, the finding was determined to be in the Fire Confinement category because the fire barrier separated one fire area from another. The inspectors assigned a moderate degradation rating since there was defense-in-depth and more than 20 feet of horizontal separation between the degraded barrier and safety-related equipment. The inspectors performed the Phase 1 qualitative screening check and characterized the finding as having very low safety significance (Green) since the existing barrier would protect all safety-related equipment in the exposed fire area for at least a minimum of 20 minutes. The licensee is continuing the hourly fire watch in the areas as an interim compensatory measure.

Example 3: The licensee failed to take prompt corrective action to resolve an NRC-identified non-cited violation of 10 CFR Part 50, Appendix R, for failure to provide fire protection features for structures, systems, and components important to achieve and maintain cold shutdown or having the capability of repairing these components within 72 hours. The raw water pumps are safety-related pumps located in the intake structure and are required for the plant to achieve and maintain cold shutdown conditions. The pumps receive power from the auxiliary building via underground cables. In Manhole 5 the cables are in trays located on a nonrated concrete wall that separates the two trains. The licensee did not provide proper cable separation nor the necessary fire protection features for the raw water pump cabling in Manhole 5. In addition, the licensee did not have a procedure and materials available to repair the cabling within 72 hours. NRC Inspection Report 05000285/2004003 documented a Green noncited violation of 10 CFR Part 50, Appendix R. The licensee had entered this finding into the corrective action program as Condition Report 200400348 and had established an hourly fire watch in the area above Manhole 5 as an interim compensatory measure. The inspectors found that repair procedures had not been developed and repair materials had not been designated.

The performance deficiency was the failure to provide fire protection features for structures, systems, and components important to achieve and maintain cold shutdown or having the capability of repairing these components within 72 hours as required by 10 CFR Part 50, Appendix R. This finding affected the mitigating systems cornerstone and was considered more than minor since it affected the cornerstone attribute of Protection Against External Factors. Based on Manual Chapter 0609, Appendix F, the finding was determined to be in the Cold Shutdown category since the raw water pumps are needed to achieve and maintain cold shutdown. The inspectors assigned a moderate degradation rating because the concrete partition separating the trains would provide some protection. The inspectors performed the Phase 1 qualitative screening check and characterized the finding as having very low safety significance (Green) since the finding only affected the ability to reach and maintain cold shutdown conditions. The licensee is continuing the hourly fire watch in the area above Manhole 5 as an interim compensatory measure.

Inspection Report# : [2005008\(pdf\)](#)



Significance: G Sep 02, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Abnormal Operating Procedure for Loss of Raw Water

The team identified a noncited violation of Fort Calhoun Technical Specification 5.8, "Procedures," for failure to properly develop and implement a technical specification required procedure. Technical Specification 5.8 states, in part, that written procedures shall be established, implemented and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2. Item 6g of Appendix A to Regulatory Guide 1.33 requires a procedure to combat a loss-of-service water (at Fort Calhoun service water is identified as the raw water system). Contrary to this, Fort Calhoun Abnormal Operating Procedure AOP-18, "Loss of Raw Water," was inadequate with respect to the connection of a back-up water source to the "A" component cooling water heat exchanger. The procedure requires that a fire water hose be connected to the raw water drain of the "A" component cooling water heat exchanger, however, the physical orientation of the connection and limited clearance with the adjacent wall would result in the fire water hose being kinked, which would restrict flow through this heat exchanger.

This finding was a performance deficiency because the inadequate connection was not identified during verification of the adequacy of steps in Abnormal Operating Procedure AOP-18. The finding was greater than minor because it affected the Mitigating Systems cornerstone objective of

ensuring the availability, reliability, and capability of systems that respond to initiating events, in that, if left uncorrected could result in the plant not being able to sustain long-term decay heat removal under specific conditions. This finding was of very low safety significance because there has never been an instance when fire water has been called upon to provide cooling to the "A" component cooling water heat exchanger. This issue was entered into the licensee's corrective action program as Condition Report 200504153. (Section 1R21.5(1))

Inspection Report# : [2005011\(pdf\)](#)



Significance: Sep 02, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Analysis for Using Fire Water as a Backup for Raw Water

The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III (Design Control), for the failure to perform a complete and adequate analysis of the design conditions that exist for using fire water as a backup raw water source in Abnormal Operating Procedure AOP-18, "Loss of Raw Water." Specifically, the following technical errors in Calculation 203.19.05, "The Feasibility of Using Firewater for Cooling the Component Cooling Water System," Revision 4/26/88, were identified: the licensee failed to analyze river water temperatures at a maximum inlet temperature of 90°F as described in the Updated Safety Analysis Report and instead performed the analysis with a less conservative inlet temperature of 85°F; the supporting design documentation assumes the use of two of three Component Cooling Water Heat Exchangers A, C or D (which excludes heat exchanger "B") while Abnormal Operating Procedure AOP-18 allows the use of any two heat exchangers, and; Abnormal Operating Procedure AOP-18 includes steps to bring the reactor coolant temperature to 300°F, however, the design analysis only takes into account the reactor coolant temperature being held at a hot shutdown condition of 515°F.

The failure to perform adequate design analyses to support required procedures was a performance deficiency. The issue had more than minor safety significance because it impacted the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that mitigate plant accidents in that not providing an adequate analysis for the use of firewater could prevent proper cooling of the reactor coolant system. The finding was of very low safety significance because the procedure has never been required to be used. This issue has been entered into the licensee's corrective action program as Condition Report 200504328. (Section 1R21.1)

Inspection Report# : [2005011\(pdf\)](#)



Significance: Sep 02, 2005

Identified By: NRC

Item Type: FIN Finding

Potential Design Vulnerability of Intake Structure

The team identified a finding in that the licensee failed to address a change in the intake structure design conditions and, as a result, adequately ensure that the raw water system would function reliably. Specifically, over time, the river bottom has build up to a level 2 feet above the floor of the intake structure. This has allowed small rocks to regularly enter the raw water system and trip the raw water strainers and periodically impact the operation of the traveling screens. This change in river conditions represents a design vulnerability with a potential to cause a loss of screens and raw water pumps. Additionally, there was no formal preventive maintenance in place to sound the river bottom and no systematic analysis to assess any impact.

This finding was more than minor because it affected the availability, reliability, and capability of the raw water system under accident conditions. This design condition was not contrary to any regulatory requirements or the licensing bases. Consequently, it was not considered to be a violation of regulatory requirement. The finding was of very low safety significance because it did not represent an actual loss-of-safety function. However, this finding had problem identification and resolution aspects because of the longstanding nature of the problem. (Section 1R21.5(3))

Inspection Report# : [2005011\(pdf\)](#)

Barrier Integrity



Significance: Jun 30, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Identify a Condition Adverse to Quality Associated with an Inoperable Personnel Access Lock

A noncited self-revealing violation of 10 CFR Part 50, Appendix B, Criterion XVI, was identified for the failure to ensure that conditions adverse to quality are promptly identified and corrected. Specifically, a licensed operator and radiation protection technician failed to promptly identify and correct Personnel Access Lock inner door equalizing valve leakage, a condition adverse to quality that affected containment integrity and resulted in a technical specification violation. The finding has crosscutting aspects in the corrective action program component of the problem identification and resolution crosscutting area in that the inner Personnel Access Lock door equalizing valve leakage was not promptly identified and corrected.

The finding was considered self-revealing since the inner door equalizing valve leakage revealed itself when contamination smears were blown off the step-off pad after opening the outer door. The finding was more than minor since it is associated with the reactor safety barrier cornerstone attribute to maintain functionality of containment. The finding also affected the cornerstone objective by not providing reasonable assurance that the physical design barrier protected the public from radionuclide releases caused by events when the outer Personnel Access Lock door was open. Using the Significance Determination Process, Inspection Manual Chapter 0609 Appendix A, the finding represented an actual bypass of the reactor

containment therefore Inspection Manual Chapter 0609 Appendix H was used to evaluate the finding. In Inspection Manual Chapter 0609, Appendix H, the finding was classified as Type B, since there was no impact on core damage frequency but did potentially contribute to large/early release frequency. The initial screening determined the finding to be of very low safety significance (Green) since it was not related to a containment structure, system, or component defined in Appendix H, Table 4.1. This condition has been entered into the licensee's corrective action program as Condition Report 20060144.

Inspection Report# : [2006003\(pdf\)](#)



Significance: Sep 02, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Reconcile Specification to ASME Code Requirements for Air Accumulators.

The team identified a noncited violation of 10 CFR 50.55a(b) for the failure to satisfy the requirements of the ASME Boiler and Pressure Vessel Code. ASME Code Section VIII, Subsection UG-10.a.3, requires that any material produced to a specification other than a Code-approved specification may be accepted provided that documentation, including the initial certification by the material manufacturer, is provided stating that the material meets all the requirements of the designated Code-approved specification. Contrary to this requirement, the licensee procured air accumulator tanks for the containment air cooling system isolation valves as commercial-grade tanks designed in accordance with Department of Transportation (DOT) Specification 4BA240 and did not reconcile the requirements of this specification with the corresponding ASME Section VIII requirements.

This finding was a performance deficiency because the licensee failed to assure that the accumulators satisfied ASME Code requirements. The violation is greater than minor because an analysis was required in order to determine whether the tanks were acceptable for their application and because it was associated with the human performance attribute of the barrier integrity cornerstone and impacted the cornerstone objective of providing reasonable assurance that physical design barriers, in this case the isolation valves, protect the public from radio nuclide releases caused by accidents or events. The finding was of very low safety significance because a preliminary analysis indicated that code allowable stresses had not been exceeded. This issue was entered into the licensee's corrective action program as Condition Report 200504244. (Section 1R21.5(2))

Inspection Report# : [2005011\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety



Significance: Sep 30, 2005

Identified By: NRC

Item Type: FIN Finding

Failure to Adequately Plan Work in Restricted High Radiation Areas

Green. The inspector identified a finding because performance deficiencies resulted in a collective dose for a work activity that exceeded five person-rem and 150 percent of the legitimate dose estimate. Radiation Work Permit 05-3530, "Reactor Vessel Head Inspection in Restricted High Radiation Areas," was estimated to require approximately three person-rem to complete, but actually accrued approximately 13.6 person-rem. The licensee used an unproven technology to inspect for defects. As a result, equipment problems caused the planned work duration and dose to be greatly exceeded. The project was poorly planned, poorly implemented, and poorly overseen by management. The finding was placed into the licensee's corrective action program as Condition Report 200501853.

This finding was more than minor because it was associated with the occupational radiation safety cornerstone attribute (al low as reasonably achievable planning/estimated dose) and affected the associated cornerstone objective in that it increased the collective dose. When processed through the occupational radiation safety significance determination process, this al low as reasonably achievable finding was found to have no more than very low safety significance because: (1) the finding was related to al low as reasonably achievable planning or work control, but (2) the licensee's 3-year rolling average collective dose was not greater than 135 person-rem. In addition, this finding had crosscutting aspects associated with human performance, in that the poorly managed project resulted in the finding.

Inspection Report# : [2005004\(pdf\)](#)



Significance: Sep 30, 2005

Identified By: NRC

Item Type: FIN Finding

Failure to adequately plan emergent work in restricted high radiation areas

Green. The inspector identified a finding because the licensee did not adequately plan for emergent work, causing the collective dose for the work activity to exceed 5 person-rem and 150 percent of the legitimate dose estimate. Radiation Work Permit 05-3519, "SI-220 Valve Replacement in Restricted High Radiation Areas," was estimated to require approximately 3 person-rem to complete, but actually accrued approximately 9.8

person-rem. The licensee failed to formulate reasonably accurate dose estimates and plan dose saving measure for the emergent work after problems occurred. The finding was placed into the licensee's corrective action program as Condition Reports 200504080 and 200504274.

This finding was more than minor because it was associated with the occupational radiation safety cornerstone attribute (al low as reasonably achievable planning/estimated dose) and affected the associated cornerstone objective in that it increased the collective dose. When processed through the occupational radiation safety significance determination process, this al low as reasonably achievable finding was found to have no more than very low safety significance because: (1) the finding was related to al low as reasonably achievable planning or work control, but (2) the licensee's 3-year rolling average collective dose was not greater than 135 person-rem. In addition, this finding had crosscutting aspects associated with human performance and problem identification and resolution. The ALARA planner's failure to take proper actions directly caused the finding. The work group failed to address problems that caused the unplanned dose through the corrective action program.
Inspection Report# : [2005004\(pdf\)](#)

Public Radiation Safety

Significance:  May 12, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to train hazardous material employees

The team identified a non-cited violation (NCV) of 49 CFR 172.704(a) because the licensee failed to provide required training to hazardous material employees involved in the shipment of radioactive material. Specifically, the licensee did not provide function-specific training of applicable sections of the shipping regulations to machinists involved in the reassembly the shipping casks. Corrective actions were still being evaluated; however, the licensee plans to provide hazardous material training to these employees.

The finding is greater than minor because it is associated with the Public Radiation Safety Cornerstone attribute (Transportation Program) and process. The finding affects the cornerstone objective which is to ensure adequate protection of public health and safety from exposure to radioactive materials in the public domain because it involved the potential to impact the licensee's ability to safely package and transport radioactive material on public roadways. When processed through the Public Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it: (1) was associated with radioactive material control, (2) involved the licensee's program for radioactive material packaging and transportation, (3) did not cause radiation limits to be exceeded, (4) did not result in a breach of package during transit, (5) did not involve a certificate of compliance issue, (6) did not involve a low level burial ground nonconformance, and (7) did not involve a failure to make notifications or to provide emergency information. In addition, this finding had cross-cutting aspects associated with human performance in that the organization failed to implement regulatory requirements for training hazardous material employees.
Inspection Report# : [2006014\(pdf\)](#)

Significance:  May 12, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to survey and control radioactive material.

The team reviewed a self-revealing, non-cited violation of 10 CFR 20.1501(a) that resulted from the licensee's failure to properly survey items contaminated with radioactive material. On March 8, 2005, the licensee failed to adequately evaluate the radiological hazards associated with releasing concrete cutters from the site protected area for unrestricted use in the public domain and assure compliance with 10 CFR 20.1301. Subsequently, the licensee calculated that they had released contaminated concrete cutters offsite into the public domain which had the potential for a member of the public to receive 1.7 millirem/year of unnecessary radiation exposure.

The finding is greater than minor because it was associated with a Public Radiation Safety Cornerstone attribute (material release), and it affected the associated cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain because the failure to adequately survey items and control radioactive material decreases assurance that the public will not receive unnecessary dose. When processed through the Public Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because: (1) the finding was a radioactive material control issue, (2) it was not a transportation issue, and (3) it did not result in a dose to the public greater than 0.005 rem. This finding also had crosscutting aspects associated with human performance in that licensee's organization failed to implement regulatory requirements necessary to establish survey techniques in procedures in order to prevent the release of equipment internally contaminated with radioactive material.
Inspection Report# : [2006014\(pdf\)](#)

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Significance: N/A Nov 30, 2005

Identified By: NRC

Item Type: FIN Finding

Biennial Assessment of Identification and Resolution of Problems

The team reviewed approximately 183 condition reports, notifications, root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. Overall, the licensee had an adequate problem identification and resolution program. However, the licensee did not consistently identify problems at the first opportunity and sometimes NRC involvement was necessary to ensure proper identification. In addition, untimely corrective measures, particularly in response to NRC identified violations and fire protection concerns, periodically challenged the site. Nonetheless, in most cases the licensee properly identified problems, evaluated and prioritized issues, and implemented acceptable corrective measures.

Based on the interviews conducted, the team concluded that a positive safety conscious work environment exists at the Fort Calhoun Station. Employees felt free to raise safety concerns to their supervision, to the employee concerns program, and to the NRC. The team received a few isolated comments regarding reluctance to contact the employee concerns program or the NRC due to concern that their identity would be revealed to the licensee. The team determined that licensee management was aware of this perception and was taking actions to address it. All the interviewees believed that potential safety issues were being addressed.

Inspection Report# : [2005009\(pdf\)](#)

Last modified : August 25, 2006