

## Cooper

# 2Q/2005 Plant Inspection Findings

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### Initiating Events

**Significance:**  Mar 24, 2005

Identified By: NRC

Item Type: FIN Finding

#### **Inadequate Maintenance Resulted in Failure of Reactor Protection System Power Supply**

A self-revealing finding was identified regarding the failure to perform adequate maintenance on the reactor protection system motor generator. Inadequate maintenance on reactor protection system Motor Generator B resulted in a winding failure and internal fault on the motor. The licensee failed to incorporate vendor recommendations to periodically disassemble, clean, and inspect the motor into maintenance activities.

This finding was considered more than minor since it affected the initiating events cornerstone attribute of availability, reliability, and maintenance of equipment. This finding was determined to have very low safety significance since it did not contribute to the likelihood of a primary or secondary system loss of coolant accident, did not contribute to a loss of mitigation equipment, and did not increase the likelihood of a fire or internal/external flood.

Inspection Report# : [2005002\(pdf\)](#)

**Significance:**  Sep 23, 2004

Identified By: Self Disclosing

Item Type: FIN Finding

#### **Inadequate preventive maintenance on service aire Compressor A**

A self-revealing finding was identified associated with the licensee's failure to perform adequate maintenance on service air compressors. Inadequate maintenance on the motor resulted in damage to the motor windings and the compressor was declared inoperable. The licensee failed to implement preventive maintenance requirements that incorporated vendor recommendations for the motor windings.

This finding was more than minor since it affected the reactor safety initiating events cornerstone attribute of equipment performance. It was considered to be of very low safety significance since it did not contribute to the likelihood of a loss of coolant accident, did not contribute to the loss of mitigation equipment, and did not increase the likelihood of a fire or flooding event.

Inspection Report# : [2004004\(pdf\)](#)

**Significance:**  Sep 23, 2004

Identified By: Self Disclosing

Item Type: FIN Finding

#### **Inadequate preventive maintenance on reactor feed pump limit switches.**

A self-revealing finding was identified for the failure to perform adequate maintenance on reactor feed pump limit switches. Inadequate maintenance on the Reactor Feed Pump B limit switch resulted in the Reactor Feed Pump B turbine speed decrease and an unplanned reduction in reactor power. The licensee failed to implement preventive maintenance requirements to ensure appropriate industry recommendations were incorporated in the preventive maintenance program.

This finding was more than minor since it affected the reactor safety initiating events cornerstone attribute of equipment performance. It was considered to be of very low safety significance since it did not contribute to the likelihood of a loss of coolant accident, did not contribute to the loss of mitigation equipment, and did not increase the likelihood of a fire or flooding event. This finding has cross-cutting aspects associated with problem identification and resolution based on the fact that corrective actions for a similar limit switch failure were never implemented.

Inspection Report# : [2004004\(pdf\)](#)

**Significance:**  Jul 23, 2004

Identified By: NRC

Item Type: FIN Finding

#### **Inadequate PM Results in Plant Transient**

A self-revealing finding was identified associated with the licensee's failure to perform adequate maintenance on Reactor Recirculation Motor Generator A. Inadequate maintenance on the motor generator field brushes resulted in the loss of field voltage, an unexpected trip of the motor generator, and an unplanned reduction in reactor power. The licensee failed to change their preventive maintenance requirements to incorporate vendor recommendations following modification of the brushes. This finding was more than minor since it affected the Reactor Safety Initiating Events cornerstone attribute of design control and resulted in a plant transient. It was considered to be of very low safety significance

since it did not contribute to the likelihood of a loss-of-coolant accident, did not contribute to the loss of mitigation equipment, and did not increase the likelihood of a fire or flooding event.

Inspection Report# : [2004003\(pdf\)](#)

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## Mitigating Systems

**Significance:**  Jun 23, 2005

Identified By: NRC

Item Type: FIN Finding

### **Inadequate Design Review of System Modification**

A self-revealing finding was identified involving the failure to perform an adequate design change for the reactor feed system startup flow control valves. The inadequate design change failed to ensure component temperature ratings were not exceeded, which would adversely affect valve operation. Specifically, the licensee's evaluation failed to recognize and address acceptable O-ring types for the temperatures of the reactor feed system.

This finding is greater than minor because it affected the cornerstone attribute of design control. It was determined to have very low safety significance in a Phase 3 evaluation. This finding has crosscutting aspects associated with human performance based on the fact that engineering did not follow appropriate guidance in evaluating system environmental conditions related to installing the modification. The licensee entered this finding into their corrective action program as CR-CNS-2004-06997.

Inspection Report# : [2005003\(pdf\)](#)

**Significance:**  Jun 23, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Corrective Actions Result in High Pressure Coolant Injection System being Rendered Inoperable**

A noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, was identified regarding inadequate corrective actions which resulted in the high pressure coolant injection system being rendered inoperable during scram recovery actions on April 15, 2005. During the scram recovery, operators disabled the system by placing the auxiliary oil pump in pull-to-lock rather than aligning the system to a standby condition as required by procedures. This was the third occurrence of this error in 2 years.

This finding was more than minor since it affected the availability of the high pressure coolant injection system which is relied upon to mitigate the consequences of an initiating event. Based on the Significance Determination Process Phase 1 screening, this finding was determined to have very low safety significance since it did not represent the actual loss of a safety function for greater than its Technical Specification allowed outage time and did not screen as risk significant due to external initiating events. This finding also had crosscutting aspects associated with problem identification and resolution since this was the third occurrence of this event and previous corrective actions were not comprehensive in addressing the causes. In addition, the condition report documenting this issue was incorrectly classified in the corrective action program until questioned by the inspectors. The licensee entered this finding into their corrective action program as CR-CNS-2005-02982.

Inspection Report# : [2005003\(pdf\)](#)

**Significance:**  Jun 23, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to take Adequate Corrective Actions for degraded conditions on Service Water Booster Pump System**

The inspectors identified a noncited violation of Appendix B, Criterion XVI of 10 CFR Part 50, for failure to take adequate corrective actions for degraded conditions on the service water booster pump system. On April 5, 2005, water intrusion into the service water Booster Pump A outboard bearing oil rendered the pump inoperable. This was the second occurrence. This finding was considered more than minor since it affected the operability, availability, and reliability of a mitigating system. It was considered to have very low safety significance, since it did not represent the actual loss of a safety function. It also had crosscutting aspects associated with problem identification and resolution since the previous corrective actions only addressed the symptoms of the adverse condition, not the root cause. The licensee entered this finding into their corrective action program as CR-CNS-2005-02732.

Inspection Report# : [2005003\(pdf\)](#)

**Significance:**  Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Follow Operability Determination Procedure**

A noncited violation of Technical Specification 5.4.1 was identified regarding the failure to implement the operability determination procedure.

The licensee failed to meet timeliness goals and documentation requirements for evaluating the operability of the service water discharge strainers following a high differential pressure condition.

This finding was more than minor since it was associated with the operability of mitigating equipment and could become a more significant safety concern if left uncorrected. This finding was determined to have very low safety significance since the licensee was ultimately able to demonstrate operability of the affected equipment. This finding had cross-cutting aspects associated with human performance.

Inspection Report# : [2005002\(pdf\)](#)

**G**

**Significance:** Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Instructions for Restoration of the Service Water System Following Maintenance**

NRC Inspection Report 05000298/2004014 documented an apparent violation associated with inadequate instructions for restoration of the gland water supply to SW Pumps B and D following maintenance. This finding had the potential to render the pumps incapable of performing their safety function during a postulated accident and was determined to have a preliminary safety significance of greater than very low safety significance.

Inspection Report# : [2005002\(pdf\)](#)

**G**

**Significance:** Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Plant Temperatures Outside Updated Safety Analysis Report Limits**

The inspectors identified a noncited violation of 10 CFR 50, Appendix B, Criterion XVI, in that the licensee failed to promptly identify conditions adverse to quality when plant temperatures were outside the Updated Safety Analysis Report specifications. The system engineer knew of the problems but was not aware of program requirements. The failure to properly identify conditions adverse to quality in the corrective action program involved cross-cutting aspects of problem identification.

The inspectors determined that the issue had more than minor safety significance because it impacted the mitigating systems cornerstone objective and could have affected the ability of safety-related systems to perform their design basis functions. The finding was of very low risk significance because it was a design/qualification deficiency that did not result in a loss of function per Generic Letter 91-18, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions," Revision 1.

Inspection Report# : [2004005\(pdf\)](#)

**G**

**Significance:** Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Implement the Station Fire Watch Procedure**

The inspectors identified a noncited violation of Technical Specification 5.4.1.d for failure to implement the station's fire watch procedure.

Specifically, on October 22, 2004, the inspectors identified that a compensatory fire watch, responsible for protecting equipment important to safety from fire damage, was not alert and therefore was inattentive to the areas assigned as directed by procedural requirements.

This finding was considered more than minor since the finding would become a more significant safety concern if left uncorrected, but it was determined to have very low safety significance since the finding was assigned a moderate fire protection barrier degradation rating and did not degrade the automatic water-based fire suppression system in the fire area. This finding had crosscutting aspects associated with problem identification and resolution due to the licensee's failure to enter this condition into the corrective action program until prompted by the inspectors approximately 10 days following its identification.

Inspection Report# : [2004005\(pdf\)](#)

**G**

**Significance:** Sep 23, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to follow temporary shielding procedure.**

The inspectors identified Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures for the installation of temporary shielding. During a plant tour, the inspectors identified that temporary shielding was in contact with residual heat removal system components resulting in residual heat removal shutdown cooling being declared inoperable.

This finding was more than minor since it affected the reactor safety mitigating systems cornerstone attribute of configuration control but it was considered to have very low safety significance since the condition did not involve any actual loss of function to the safety-related components and did not screen as risk significant due to seismic, fire, flooding or severe weather event. This finding has crosscutting aspect associated with problem identification and resolution based on the fact that the licensee missed several opportunities to identify and evaluate the shielding.

Inspection Report# : [2004004\(pdf\)](#)

G**Significance:** Jul 10, 2004

Identified By: NRC

Item Type: AV Apparent Violation

**Inadequate instructions for restoration of the SW system following maintenance**

A self-revealing apparent violation of 10 CFR Part 50, Appendix B, Criterion V, was identified for the failure to provide adequate instructions for restoring the service water system to an operable configuration following the completion of maintenance activities. This condition existed from January 21 through February 11, 2004, and resulted in Division 2 of the service water system as well as Emergency Diesel Generator 2 being inoperable for 21 days. The finding was greater than minor because it affected the reliability of the service water system, which is relied upon to mitigate the effects of an accident. The finding was determined to have a potential safety significance greater than very low significance (i.e., Greater than Green) because it caused an increase in the likelihood of an initiating event, namely, a loss of service water, as well as increasing the probability that the service water system would not be available to perform its mitigating systems function.

Inspection Report# : [2004014\(pdf\)](#)G**Significance:** Jul 02, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Three examples of a noncited violation of Technical Specification 5.4.1.d for failure to provide adequate instructions in Emergency Procedure 5.4 Fire-S/D, "Fire Induced Shutdown From Outside Control.**

The team identified three examples of a noncited violation of Technical Specification 5.4.1.d for failure to provide adequate instructions in Emergency Procedure 5.4 Fire-S/D, "Fire Induced Shutdown From Outside Control Room," Revision 3. In the first example, the licensee failed to provide adequate instructions to operators to assure that high pressure coolant injection flow would be secured within analyzed times in order to prevent reactor vessel overfill and subsequent damage to safety relief valves. In the second example, the licensee failed to provide adequate instructions to operators to ensure the main steam isolation valves were closed in order to prevent feedwater from overfilling the reactor vessel and damaging safety relief valves. In the third example, the licensee failed to provide adequate instructions to ensure operators would correctly position 14 motor-operated valves (required for achieving and maintaining safe shutdown) from motor-control centers. Operating motor-operated valves in this manner bypasses the valves' protective features, leaving them vulnerable to damage by over-thrust. This finding has cross-cutting aspects in the area of human performance.

This finding is of greater than minor safety significance because it impacted the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. The team leader and the senior reactor analyst, performed a Phase 3 risk assessment for each of these examples using INEEL/EXT-02-10307, "SPAR-H Human Reliability Method," dated May 2004, and determined that the significance of each of these findings was very low (green). This very low significance can be attributed to a low initiating event frequency and low probability of circuit failures which would cause spurious operation.

Inspection Report# : [2004008\(pdf\)](#)G**Significance:** Jul 02, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to ensure redundant safe shutdown systems located in the same fire area are free of fire damage.**

The team identified a noncited violation of Section III.G.2 of Appendix R to 10 CFR Part 50 for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. For example, cables associated with the automatic depressurization system were not physically protected from fire damage, leaving them vulnerable to spurious operation. The licensee credited manual actions to mitigate the effects of fire damage in lieu of providing the physical protection required by 10 CFR Part 50, Appendix R, Section III.G.2.

This finding is of greater than minor safety significance because it impacted the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. The team found that the manual operator actions implemented to mitigate the effects of fire damage were reasonable (as defined in Enclosure 2 of NRC Inspection Procedure 71111.05, "Fire Protection"), and could be performed within the analyzed time limits. Therefore, in accordance with Enclosure 2 of NRC Inspection Procedure 71111.05, the finding was determined to be of very low safety significance (green), and the significance determination process was not entered.

Inspection Report# : [2004008\(pdf\)](#)

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## Barrier Integrity

G**Significance:** Jun 23, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Reactor Operation in Excess of Licensed Thermal Power Limits**

A noncited violation of License Condition 2.C(1) occurred when operators allowed reactor power to exceed the licensed power limit of 2381 MW for 7 hours during a xenon transient on April 10, 2005. Reactor power slowly increased above 2381 MW during the transient; however, operators were controlling the reactor using the eight hour power average which remained below 2381 MW for approximately 7 hours. Reactor power remained below 102 percent during the entire transient; therefore, the reactor was not operated outside its design limits.

This finding was more than minor since it affected the cornerstone attribute of maintaining functionality of the fuel cladding. Based on the Significance Determination Process Phase 1 screening, this finding was determined to have very low safety significance since it only involved the potential to affect the fuel barrier. This finding also had crosscutting aspects associated with human performance and problem identification and resolution since the cause of this event was the erroneous belief by the reactor operator that the reactor could be operated above licensed thermal power as long as the 8-hour average remained below the licensed limit. This aspect of the event was not addressed in the licensee's apparent cause. The licensee entered this finding into their corrective action program as CR-CNS-2005-02869.

Inspection Report# : [2005003\(pdf\)](#)

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## Emergency Preparedness

**Significance:**  Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure to Implement Emergency Plan During a Fire

The inspectors identified a noncited violation of 10 CFR 50.54(q) for the failure to implement the emergency plan during an actual plant event. On March 14, 2005, at approximately 2:51 a.m. station operators reported to the control room that there was a fire in a trash bin in the multi-purpose facility inside the protected area. At approximately 3:08 a.m., heavy smoke and flames were seen inside a container near the trash bin and the fire brigade leader reported to the control room that the fire was not out. The fire was declared out at 3:13 a.m. Emergency classification requirements state that a fire within the protected area which takes longer than 10 minutes to extinguish meets the criteria for a Notification of Unusual Event. No such declaration was made by the control room.

This finding affected the Emergency Preparedness cornerstone was more than minor because it affected the cornerstone attribute of emergency response organization performance during actual event response. This finding was determined to be of very low safety significance since it only involved the failure to declare a Notification of Unusual Event during an actual plant event. This finding had cross-cutting aspects associated with human performance.

Inspection Report# : [2005002\(pdf\)](#)

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## Occupational Radiation Safety

**Significance:**  Jun 23, 2005

Identified By: NRC

Item Type: FIN Finding

### Failure to Maintain Collective Doses Associated with Radiological Job Package 2005AL-03 ALARA

The inspector identified a finding because inadequate planning resulted in the collective dose of a work activity that exceeded 5 person-rem and exceeded the dose estimate by more than 50 percent. Radiological Job Package 2005AL-03, Sludge Removal from the Torus, was projected to accrue 3.2 person-rem, but actually accrued approximately 5.7 person-rem because inadequate planning necessitated additional, unplanned handling of radioactive filters.

This finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (ALARA planning/estimated dose) and affected the associated cornerstone objective in that the failure to control collective dose affected the licensee's ability to ensure adequate protection of the worker health and safety from exposure to radiation. When processed through the Occupational Radiation Safety Significance Determination Process, this ALARA finding was of very low safety significance because the finding was related to ALARA, but the licensee's 3-year rolling average collective dose was not greater than 240 person-rem. The finding was documented in the licensee's corrective action program as CR-CNS-2005-2969.

Inspection Report# : [2005003\(pdf\)](#)

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**Significance:**  Jun 23, 2005

Identified By: NRC

Item Type: FIN Finding

### Failure to Plan and Control Dose or Provide ALARA Committee Oversight for Radiation Work Permit 2005-1072

The inspector identified a finding because the licensee failed to plan and control dose or provide ALARA Committee oversight for the work activity that accrued the largest portion of the refueling outage dose. The drywell general access and limited maintenance special work permit

accrued nearly 38 person-rem, but had no dose estimate, work plan, or ALARA committee review.

This finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (ALARA planning/estimated dose) and affected the associated cornerstone objective in that the failure to plan and control radiation dose affected the licensee's ability to ensure adequate protection of worker health and safety. In this case, the licensee formulated no dose estimate. Manual Chapter 0308, Appendix C, states, "Planned or intended collective dose can be the results of a realistic dose estimate (or projection) established during ALARA planning or the dose expected by the licensee (i.e., historically achievable) for the reasonable exposure control measures specified in ALARA procedures/planning." Since the licensee had no expectation of the potential dose, the inspector compared the actual dose with historical doses and found that the 2005 doses exceeded the historical totals by more than 50 percent. When processed through the Occupational Radiation Safety Significance Determination Process, this ALARA finding was found to have no more than very low safety significance because the finding was related to ALARA, but the licensee's 3-year rolling average collective dose was not greater than 240 person-rem. The finding was documented in the licensee's corrective action program as CR-CNS-2005-2985.

Inspection Report# : [2005003\(pdf\)](#)

**G**

**Significance:** Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Gain Authorized Access to a High Radiation Area in Accordance with Technical Specification 5.7.1**

A self-revealing non-cited violation of Technical Specification 5.7.1 was reviewed. Specifically, on January 5, 2005, an individual entered a properly posted and controlled high radiation area in the condenser bay without authorization and without observing the access controls that were in-place. Licensee staff determined that the individual entered the high radiation area without being logged on the proper special work permit, and without being made knowledgeable of the radiological conditions in the area as required by the Technical Specifications. The general radiation levels were found to be as high as 300 millirem per hour. This occurrence was entered into the licensee's corrective action program.

The failure to notify radiation protection staff and to be briefed on the radiological conditions before entering a high radiation area is greater than minor because it was associated with the cornerstone attribute Program and Process Attribute and affected the cornerstone objective to ensure the adequate protection of the worker's health and safety from exposure to radiation because unauthorized entry into a high radiation area could increase personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. This finding also had crosscutting aspects associated with human performance.

Inspection Report# : [2005002\(pdf\)](#)

**G**

**Significance:** Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform an Adequate Survey to Evaluate Radiological Hazards per 10 CFR 20.1501**

Green: A self-revealing non-cited violation of 10 CFR 20.1501(a) was reviewed when the radiation protection staff failed to perform an adequate survey of the radiological hazards associated with the movement of the reactor transfer canal. On January 19, 2005, two workers' electronic dosimeters unexpectedly alarmed after they entered the dryer/separator pool and began moving the reactor fuel transfer canal. The licensee's investigation revealed that radiation protection staff allowed the lifting and movement of the transfer canal before surveys were performed on the bottom of the transfer canal. Radiation levels were as high as 700 millirem per hour at 30 centimeters and 1,200 millirem per hour on contact with the bottom of the transfer canal. This occurrence was entered into the licensee's corrective action program.

The issue is greater than minor because it was associated with a cornerstone attribute Program and Process Attribute and affected the associated cornerstone objective because inadequate radiation surveys have the potential to cause unplanned and unintended personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. This finding also had crosscutting aspects associated with human performance.

Inspection Report# : [2005002\(pdf\)](#)

**G**

**Significance:** Mar 24, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Conspicuously Post and Barricade Two Areas in the Drywell as a Locked High Radiation Area in Accordance with Technical Specification 5.7.2.**

Green: Two examples of a self-revealing non-cited violation of Technical Specification 5.7.2 were reviewed where individuals entered locations in the drywell that were not barricaded and posted as locked high radiation areas. On January 18, 2005, at approximately 2:25 a.m. a worker who entered the drywell, unexpectedly received an electronic dosimeter dose rate alarm. Additionally, at approximately 4:23 a.m. a second worker also received a dose rate alarm. Radiation protection technicians measured 1,500 millirem per hour at 30 centimeters on the 943 foot elevation and 1,200 millirem per hour at 30 centimeters on the 901 foot elevation. This occurrence was entered into the licensee's corrective action program. However, immediate corrective actions taken from the first event were not adequate to prevent the second event.

The issues are greater than minor because they were associated with a cornerstone attribute (exposure control) and affected the associated cornerstone objective because failure to control locked high radiation areas have the potential to cause unplanned and unintended personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Additionally, this finding had human performance and problem, identification, and resolution associated aspects.

Inspection Report# : [2005002\(pdf\)](#)

**Significance:**  Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Barricade and Conspicuously Post a High Radiation Area**

The inspector identified a non-cited violation of Technical Specification 5.7.1, since the licensee failed to barricade and conspicuously post a high radiation area. On November 30, 2004, the inspector identified piping located in the Residual Heat Removal "B" heat exchanger room that had dose rates elevated to greater than 100 millirem per hour. The licensee performed a survey and confirmed dose rates were 600 millirem per hour on contact with the pipe and 160 millirem per hour at 12 inches from the pipe. The area was immediately barricaded and posted. The licensee entered this issue into its corrective action program.

This finding is greater than minor because it was associated with the cornerstone attribute (exposure control) and affected the cornerstone objective because failure to post a high radiation area with dose rates greater than 100 millirem per hour could increase the risk of personnel dosage. The finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose.

Inspection Report# : [2004005\(pdf\)](#)

**Significance:**  Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Provide a Radiation Monitoring Device that Could Detect High Radiation in a Work Area**

The inspector reviewed a self-revealing non-cited violation of Technical Specification 5.7.1 because the licensee failed to provide an individual a radiation monitoring device that could be detected when a preset integrated dose alarm was received. On December 15, 2003, an individual unknowingly exceeded the alarm setpoint of a required electronic dosimeter while working in an area with radiation levels as high as 200 millirem per hour. The electronic dosimeter was set to alarm at 20 millirem, but upon exiting the area the electronic dosimeter read 31 millirem and was alarming. The individual did not hear the alarm until the area was exited. The licensee entered this issue into its corrective action program.

This finding is greater than minor because it was associated with the cornerstone attribute (exposure control) and affected the cornerstone objective because the inability to detect an alarming device in a high radiation area could increase personnel dose. The finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. This finding also had crosscutting aspects associated with human performance.

Inspection Report# : [2004005\(pdf\)](#)

**Significance:**  Sep 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to perform an adequate survey.**

The inspector identified a non-cited violation of 10 CFR 20.1501(a) for failure to perform an adequate survey that resulted in a radiation area not being posted as required by regulations. On March 31, 2004, the licensee identified an unposted radiation area on the inside of the rain ring of the "B" Condensate Storage Tank. The survey discovered a spot near the base of the tank that read 160 millirem per hour on contact and 8 millirem per hour at 30 centimeters. The inspector determined that the radiation area had not been identified for approximately one year.

The finding is more than minor because it affected the cornerstone attribute (exposure control) and affected the associated cornerstone objective because it resulted in a radiation area not being posted. The finding was evaluated using the Occupational Radiation Safety Cornerstone because the finding involved the potential for unplanned or unintended dose which could have been significantly greater as a result of a single minor alteration of the circumstances. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was found to have very low safety significance because it was not an ALARA finding, there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised. This finding also had crosscutting aspects associated with human performance.

Inspection Report# : [2004004\(pdf\)](#)

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## Public Radiation Safety

**Significance:**  Jun 10, 2005

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

### Failure to Correctly Ship Radioactive Material

The team reviewed a self-revealing non-cited violation of 10 CFR 30.41(b)(5) because the licensee failed to correctly ship byproduct material. Specifically, on July 8, 2005, the licensee was notified by Chem-Nuclear, LLC, of the Barnwell Waste Management Facility (Barnwell) that the licensee's radioactive waste shipment (05-10) contained loose radioactive material in the Type B shipping cask, which is prohibited by the Barnwell license.

The failure to correctly ship radioactive material is a performance deficiency. The finding is greater than minor because it was associated with the Public Radiation Safety cornerstone attribute of Transportation Packaging, and it affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials. This finding was processed through the Public Radiation Safety Significance Determination Process because the finding involved an occurrence in the licensee's radioactive material transportation program that is contrary to NRC regulations. The finding was determined to be of very low safety significance (Green) because: (1) it is a finding in the transportation program, (2) there were no radiation dose limits exceeded, (3) there was no breach of package during transportation, (4) it was not a Certificate of Compliance finding, (5) it was a low level waste burial Ground Nonconformance; however, (6) access was not denied and (7) the waste was not underclassified. The finding was entered into the licensee's corrective action program as CR-CNS-2005-04886.

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

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## Physical Protection

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

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## Miscellaneous

Last modified : August 24, 2005