

Palo Verde 2

3Q/2005 Plant Inspection Findings

Initiating Events

Significance:  Apr 03, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

INADVERTENT SAFETY INJECTION DURING INTEGRATED SAFEGUARDS TESTING

A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for an inadequate surveillance procedure which resulted in an inadvertent safety injection and subsequent reactor coolant system level transient. Specifically, an integrated safeguards test procedure cautioned operations personnel to evaluate the pressure difference between the reactor coolant system and safety injection tanks prior to any actuation that opened the safety injection tank outlet isolation valves. The procedure was inadequate in that it failed to caution the operator to consider level differences which could potentially impact the total pressure head of the system. This issue involved human performance crosscutting aspects associated with inadequate operations procedures. This issue was entered into the corrective action program as Condition Report/Disposition Request 2786378.

The finding is determined to be greater than minor because it affected the procedure quality attribute of the initiating events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. Using Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," this finding is determined to have very low safety significance because the event did not constitute a loss of level control and did not represent a finding requiring quantitative assessment. The finding did not increase the likelihood of loss or cause a degradation in the ability to restore decay heat removal, reactor coolant system inventory, offsite power, alternate core cooling, or containment

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

Significance:  Nov 11, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow the Operability Determination Process

A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for not following the timeliness requirements noted in Procedure 40DP-9OP26, "Operability Determination," following the identification of a nonconforming condition associated with a pressurizer heater sleeve modification tolerances. Procedure 40DP-9OP26 requires that the shift manager or shift technical advisor be immediately notified of indications of a potential non-conformances. A condition report/disposition request was initiated on November 9, 2004, but neither the shift manager, nor the shift technical advisor were notified until Wednesday, November 10, 2004. This issue also had problem identification and resolution crosscutting aspects associated with engineering personnel not informing the control room in a timely manner and is similar to issues noted in adverse Condition Report/Disposition Requests 2733983 and 2734037, issued on August 26, 2004. The issue was entered into the licensee's corrective action program as Condition Report/Disposition Request 2754848.

This finding is greater than minor since the failure to follow the operability determination process, if left uncorrected, would become a more significant safety concern. Using the Phase 1 Worksheet in Manual Chapter 0609, "Significance Determination Process," the finding is determined to have very low safety significance because it only affected the initiating events cornerstone and did not result in actual degradation of the reactor coolant system boundary.

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

Mitigating Systems

Significance:  Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

IMPROPER VISUAL ANALYSIS OF BEARING OIL SAMPLE

The inspectors identified a noncited violation of Technical Specification 5.4.1.a for the failure of maintenance personnel to follow Procedure 31DP-9ZZ01, "Lubricant Sampling," and Work Order 2724849. Specifically, a maintenance technician incorrectly determined that the oil sample taken from the Unit 2 high pressure safety injection (HPSI) pump was satisfactory, when the oil sample did not meet the acceptance criteria. Consequently, immediate actions to address potential equipment deficiencies were not taken until the samples were analyzed by a

lubrication engineer approximately two weeks later. This finding involved human performance crosscutting aspects associated with maintenance personnel following procedures and attention to details. This issue was entered into the licensee's corrective action program as Condition Report/Disposition Request 2828545.

The finding is greater than minor since the failure to follow the lubricant sampling process, if left uncorrected, would become a more significant safety concern in that degraded equipment conditions may not be identified and corrected in a timely manner. A Phase 2 analysis was required because the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, determined that there was a loss of the long term cooling safety function of a single train of HPSI for greater than the Technical Specification allowed outage time. A senior reactor analyst determined that the HPSI pump was only required to operate for 24 hours to meet the assumptions necessary in the risk model to preclude sequences that result in core damage. Consequently, this finding is determined to have very low safety significance (Section 1R19) Inspection Report# : [2005004\(pdf\)](#)

G**Significance:** Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURES DURING CORE PROTECTION CALCULATOR SOFTWARE INSTALLATION AND TESTING

The inspectors identified two examples of a noncited violation of Technical Specification 5.4.1.a for the failure to follow Procedure 77ST-9SB19, "CPCS Channel Functional Test," and Work Order 2824743 during core protection calculator software installation. Specifically, maintenance technicians: (1) failed to change the software loading instructions of Work Order 2824743 prior to proceeding with the core protection calculator software installation when it could not be used as written, and (2) failed to follow the surveillance test procedure used to perform a core protection calculator functional test. This finding involved human performance crosscutting aspects associated with instrumentation and controls personnel following procedures. This finding also involved problem identification and resolution crosscutting aspects associated with instrumentation and controls personnel identifying degraded or nonconforming conditions. This issue was entered into the licensee's corrective action program as Condition Report/Disposition Request 2825189.

The finding is greater than minor since it could become a more significant safety concern in that the failure to follow procedures when performing maintenance and testing on safety related equipment could result in an unintentional actuation or impact the ability of the equipment to perform its required function. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because it only affected the mitigating systems cornerstone and did not result in the loss of safety function of a single train or system for greater than the Technical Specification allowed outage time (Section 1R19).

Inspection Report# : [2005004\(pdf\)](#)**G****Significance:** Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM LICENSING DOCUMENT CHANGE REQUEST AND 10 CFR 50.59 SCREENING FOR ABANDONMENT OF THE BORONOMETER

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to correct a discrepancy between the current condition of the boronometer and the required configuration described in the Updated Final Safety Analysis Report. Specifically, in April 2003 the licensee identified the need to perform a Licensing Document Change Request and a corresponding 10 CFR 50.59 screening due to the abandonment of the Updated Final Safety Analysis Report required boronometer, but failed to implement corrective actions to ensure that the Licensing Document Change Request and 10CFR 50.59 screening were performed. This issue involved problem identification and resolution crosscutting aspects associated with engineering personnel implementing timely corrective actions. This issue was entered into the licensee's corrective action program as Condition Report/Disposition Request 2823704.

The finding is greater than minor because it was associated with the design control performance attribute of the mitigating systems cornerstone and affects the cornerstone objective to ensure the reliability and availability of systems that respond to initiating events. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because there was no actual loss of safety function (Section 4OA2).

Inspection Report# : [2005004\(pdf\)](#)**G****Significance:** May 17, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CORRECT A CONDITION ADVERSE TO QUALITY

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to identify and correct a deficiency in the method of testing the auxiliary feedwater pump discharge check valves. Specifically, in 1998 the licensee identified the need to test the auxiliary feedwater pump Train B discharge check valve for leak tightness, but failed to implement the appropriate corrective actions to incorporate testing into Procedure 73ST-9XI38, "AF Pumps Discharge Check Valves - Inservice Test." This issue involved problem identification and resolution crosscutting aspects associated with the failure to implement timely corrective actions. This issue was entered into the corrective action program as Condition Report/Disposition Request 2800972.

The finding is greater than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affects the cornerstone objective to ensure the reliability and availability of systems that respond to initiating events. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because there was no actual loss of safety function

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

G

Significance: Apr 29, 2005

Identified By: Self-Revealing

Item Type: FIN Finding

INADVERTENT ESFAS ACTUATION

A self-revealing finding was identified for the failure to properly sequence work to maintain power to engineered safety features system cabinet Train B. Specifically, operations personnel prematurely implemented a tagout permit prior to restoring the redundant power supply following maintenance. The work sequencing performance deficiency resulted in the loss of vital power to the cabinet; thereby, initiating an inadvertent engineered safety features actuation. This issue involved human performance crosscutting aspects associated with inadequate communications between work control groups and a poor awareness of the plant configuration. This issue was entered into the corrective action program as Condition Report/Disposition Request 2796508.

The finding is greater than minor since it was associated with the configuration control attribute of the mitigating systems cornerstone and affects the cornerstone objective to ensure the reliability and availability of systems that respond to initiating events. This finding cannot be evaluated by the significance determination process because Manual Chapter 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination Process," do not apply when the reactor is defueled. This finding is determined to be of very low safety significance by NRC management review because it was a deficiency that did not result in actual safety consequences since the reactor was defueled and a majority of the Train B equipment was tagged out for maintenance.

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

G

Significance: Apr 19, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO TAKE ADEQUATE CORRECTIVE ACTIONS TO PREVENT BOLT FAILURES

A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the failure to implement corrective actions to preclude repetition of a significant condition adverse to quality. Specifically, in 1988 the licensee identified that the gasket retaining bolts on several 16 inch butterfly valves were susceptible to stress corrosion cracking. The licensee only replaced bolts on the 16 inch valves with the identified failures and did not consider the need to replace bolts on similarly designed 10 inch and 24 inch valves. Consequently, in April 2005, the safety injection inboard and outboard containment sump isolation valves were discovered to have missing or degraded bolts and the 10 inch containment spray to shut down cooling heat exchanger valves were determined to have suspect bolts. This issue involved problem identification and resolution crosscutting aspects associated with the failure to perform an adequate transportability review. This issue was entered into the corrective action program as Condition Report/Disposition Request 2791716.

The finding is greater than minor since it affects the equipment performance attribute of the mitigating systems cornerstone objective to ensure the reliability and availability of systems that respond to initiating events. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because there was no actual loss of safety function

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

Significance: SL-IV Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO OBTAIN PRIOR NRC APPROVAL FOR A DESIGN CHANGE TO THE FACILITY

A Severity Level IV non-cited violation of 10 CFR 50.59 requirements was identified for the failure to obtain a license amendment for a permanent modification to all six station emergency diesel generators. The inspectors determined that there were two modifications performed on the jacket water system of each emergency diesel generator. Condition Report/Disposition Request (CRDR) 130208, in 1993, directed the abandonment of the jacket water surge tank makeup valves on both emergency diesel generators of all three units. A recent modification, Design Modification Work Order 220055 in 2003, removed the surge tank low level alarm on both emergency diesel generators of all three units. The licensee replaced these two automatic actions (automatic makeup and low level alarm) with a manual operator action to fill, as necessary, every 12 hours during rounds. The inspectors reviewed the updated final safety analysis report (UFSAR) and design basis documents, and found that the automatic jacket water surge tank makeup, and the low level alarm, were both shown in UFSAR descriptions, drawings, and design value tables.

The issue was determined to be more than minor, through Inspection Manual Chapter 0612, Appendix B, in that it affected the mitigating systems cornerstone attribute of equipment performance, and was repeated for all of the station emergency diesel generators. The issue was determined to result in more than a minimal increase in the consequences of a malfunction of an structure, system, or component important to safety evaluated in the UFSAR, since jacket water leakage could go undetected for up to 12 hours and affect diesel operability. Thus, a license amendment was required. In accordance with the NRC Enforcement Manual, violations of 10 CFR 50.59 are not processed through the significance determination process. Therefore, this issue was considered applicable to traditional enforcement. Although the significance determination process is not designed to assess significance of violations that potentially impact or impede the regulatory process, the result of

a 10 CFR 50.59 violation can be assessed significance through the significance determination process. The lead inspector and the Region IV senior reactor analyst discussed the significance of this finding. An SDP Phase 1 screening was performed and the finding was determined to have very low safety significance because there was no actual loss of the mitigating system safety function. The licensee entered this issue into its corrective action program as CRDR 2711244.

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

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Significance: Mar 17, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO IDENTIFY AN OPERATOR CHALLENGE FOR A BROKEN SWITCH

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow procedures to implement compensatory measures and properly track an operator work around for a breaker handswitch with a broken operating knob. When questioned by the inspectors, operations personnel were not able to immediately locate the tools needed to operate the defective handswitch. This issue was entered into the corrective action program as Condition Report/Disposition Request 2807501.

The finding is determined to be greater than minor because if left uncorrected, it could become a more significant safety concern in that operators may not be able to operate equipment necessary to respond to initiating events. Using the Phase 1 Worksheet in Manual Chapter 0609, "Significance Determination Process," the finding is determined to have very low safety significance because it only affects the mitigating systems cornerstone and did not result in the actual loss of a safety function

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

G

Significance: Mar 16, 2005

Identified By: NRC

Item Type: FIN Finding

FAILURE TO TRACK CONTROL ROOM DISCREPANCIES

The inspectors identified a finding for the failure to follow administrative guidelines provided to operations personnel for identifying, documenting, and tracking main control room deficiencies. Specifically, approximately 75 control room instrument and control room meter face plates in Units 1, 2, and 3 were degraded and were not individually tracked in the control room discrepancy log. Furthermore, discrepancy labels containing the control room discrepancy log number and description of the discrepancy were not placed adjacent to or as close as possible to each affected device. This issue was entered into the corrective action program as Condition Report/Disposition Request 2782501.

The finding is determined to be greater than minor because if left uncorrected, it could become a more significant safety concern in that the condition could cause an operator to take an inappropriate action based on expected plant response or conversely cause an operator not to take action when action is required. The senior reactor analyst determined that this finding was not appropriate to be evaluated using the significance determination process since this finding was associated with multiple human performance actions. Based on management review, the finding is determined to have very low safety significance because it only affected the mitigating systems cornerstone, and there was no adverse impact to plant equipment.

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

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Significance: Feb 25, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

SCAFFOLDING ERECTED WITH INADEQUATE CLEARANCES AND NO ENGINEERING EVALUATION

The inspectors identified a noncited violation of Technical Specification 5.4.1.a for failing to follow a maintenance procedure and associated engineering specification governing scaffold erection near safety-related components. Specifically, the licensee built approximately 85 scaffolds within the 2-inch clearance requirement and did not obtain engineering approval for the scaffolding installed in close proximity to safety-related equipment, as specified in Engineering Design Change 2000-00463. This issue involved human performance crosscutting aspects (personnel) associated with not following work instructions. This issue was entered into the corrective action program as Condition Report/Disposition Request 2779469.

The finding is determined to be greater than minor because if left uncorrected, the finding would become a more significant safety concern in that improperly installed scaffolding could impact the availability of mitigating equipment. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because it only affected the mitigating systems cornerstone, and all subsequent engineering evaluations determined that there was no adverse affect to the mitigating equipment.

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

Y

Significance: Dec 09, 2004

Identified By: NRC

Item Type: VIO Violation

FAILURE TO MAINTAIN DESIGN CONTROL OF CONTAINMENT SUMP RECIRCULATION PIPING

The team identified an apparent violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to establish measures to assure design basis information was translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to maintain the safety injection sump suction piping full of water in accordance with the Updated Final Safety Analysis Report. This nonconformance had the potential to significantly affect the available net positive suction head described in the Updated Final Safety Analysis Report for the high pressure safety injection and containment spray pumps, since the analysis assumed the piping would be maintained full of water.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. The NRC assessed this finding through Phase 3 of the Significance Determination Process and made a preliminary determination that the issue had substantial safety significance (Yellow). After considering the information developed during the inspection and the results of testing sponsored by the licensee, the NRC has concluded that this inspection finding is appropriately characterized as Yellow. The final Significance Determination Process letter was issued on April 8, 2005. This issue will be inspected within the scope of a supplemental 95002 inspection in August - September, 2005.

Inspection Report# : [2004014\(pdf\)](#)

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Significance: Dec 09, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE

The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," involving the failure of engineering and operations personnel to implement requirements in the station's condition reporting and operability determination procedures following identification of a degraded condition. Specifically, engineering personnel did not promptly notify operations personnel of a condition that impacted the safety function of the high pressure safety injection and containment spray systems. In addition, operations personnel did not complete an immediate assessment of operability once they were informed of the degraded condition. This finding had crosscutting aspects associated with problem identification and resolution, since engineering personnel did not forward corrective action program documents regarding the degraded condition to the control room in a timely manner and operations personnel did not complete a prompt operability assessment. This finding also involved crosscutting aspects associated human performance, since engineering and operations personnel did not adequately communicate the status of the engineering department's efforts to review the degraded condition.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. This finding has very low safety significance based on the results of a Significance Determination Process, Phase 3 analysis.

Inspection Report# : [2004014\(pdf\)](#)

Significance: SL-III Dec 09, 2004

Identified By: NRC

Item Type: VIO Violation

FAILURE TO OBTAIN PRIOR NRC APPROVAL FOR A CHANGE TO THE FACILITY INVOLVING MAINTAINING A SIGNIFICANT SEGMENT OF CONTAINMENT SUMP SAFETY INJECTION RECIRCULATION PIPING VOID OF WATER

The team identified an apparent violation of 10 CFR 50.59 requirements for the licensee's failure to perform a written safety evaluation and receive NRC approval prior to implementing changes to the facility in 1992 which involved draining, and maintaining drained, a significant segment of containment sump safety injection recirculation piping during normal plant operations. This change resulted in the failure to maintain the safety injection piping full of water in accordance with the Updated Final Safety Analysis Report. This represented an unreviewed safety question since it increased the probability of a malfunction of equipment important to safety previously evaluated in the safety analysis report.

In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Disposition Screening," the team determined that traditional enforcement applied because this finding may have impacted the NRC's ability to perform its regulatory function. This is an apparent violation pending the results of a predecisional enforcement conference.

Inspection Report# : [2004014\(pdf\)](#)

Barrier Integrity

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Significance: Jun 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO IMPLEMENT PROCEDURES FOR HANDLING SPENT FUEL

Three examples of a self-revealing noncited violation of 10 CFR Part 50, Criterion V, "Instructions Procedures, and Drawings," was identified for failing to properly implement procedures for refueling equipment. Specifically, refueling personnel did not: (1) complete a functional retest following maintenance on the spent fuel handling machine as required by Work Order 2781146, (2) ensure that spent fuel was in a safe condition, stop fuel handling operations, or contact the shift manager to determine the need to complete an event recovery checklist when a deficiency was identified with fuel handling equipment as required by Procedure 40DP-9OP02, "Conduct of Shift Operations," and (3) ensure the material balance area short form was present on the spent fuel handling machine to perform proper independent verification or verify that the bridge and trolley were over the correct fuel assembly as required by Procedure 78OP-9FX03, "Spent Fuel Handling Machine." This issue involved human performance crosscutting aspects associated with operator decision making and not following procedures. This issue also involved problem identification and resolution crosscutting aspects associated with the failure to correct a condition adverse to quality since there have been similar occurrences where operators failed to recognize the need to perform the event recovery checklist. This issue was entered into the corrective action program as Condition Report/Disposition Requests 2791974 and 2792326.

The finding is greater than minor since it could become a more significant safety concern if left uncorrected in that handling spent fuel with degraded equipment impacts the ability to safely handle spent fuel and increases the likelihood of a fuel handling accident. This finding cannot be evaluated by the significance determination process because Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and Appendix G, "Shutdown Operations Significance Determination Process," do not apply to the spent fuel pool. This finding affects the barrier integrity cornerstone and is determined to be of very low safety significance by NRC management review because it was a deficiency that did not result in the actual degradation of spent fuel Inspection Report# : [2005003\(pdf\)](#)

Significance:  Nov 23, 2004

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

CORE ALTERATIONS WITH LESS THAN TWO OPERABLE SRMs

A self-revealing violation of Technical Specification 3.9.2 was identified for performing core alterations with less than the required number of startup range monitors. The licensee did not identify that startup monitor Channel 2 was failed low through troubleshooting activities prior to commencing core reload. The licensee only determined that startup monitor Channel 2 was inoperable after core alterations had commenced. The issue was entered into the licensee's corrective action program as Condition Report/Disposition Requests 2654704 and 2654642.

The finding is greater than minor because it is associated with the configuration control attribute of the barrier integrity cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. Using Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," this finding is determined to have very low safety significance because the event did not constitute a loss of control and did not represent a finding requiring quantitative assessment. The finding did not increase the likelihood of loss or cause a degradation in the ability to restore decay heat removal, reactor coolant system inventory, offsite power, alternate core cooling, or containment.

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

Significance:  Nov 09, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO INCLUDE VENTS AND DRAINS INTO LOCKED VALVE PROGRAM

A noncited violation of Technical Specification Surveillance Requirement 3.6.3.3 was identified for failure to perform the required position verification for vent and drain valves associated with eight safety injection system penetrations per unit. The issue was entered into the licensee's corrective action program as Condition Report/Disposition Request 2753335.

This finding is greater than minor since it is associated with the configuration control attribute of the barrier integrity cornerstone and affects the cornerstone objective to provide reasonable assurance that the containment physical design barrier is preserved to protect the public from radio nuclide releases caused by accidents or events. Using the Phase 1 Worksheet in Manual Chapter 0609, "Significance Determination Process," the finding is determined to have very low safety significance because it only affected the barrier integrity cornerstone, all the valves were found closed, and did not result in an actual open pathway out of the reactor containment.

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

Emergency Preparedness

Significance: SL-III Mar 20, 2005

Identified By: NRC

Item Type: AV Apparent Violation

CHANGE TO RADIOLOGICAL EMERGENCY ACTION LEVELS WHICH DECREASED THE EFFECTIVENESS OF THE EMERGENCY PLAN

The inspector identified an apparent violation of 10 CFR 50.54(q) for implementing a change to emergency action levels, which decreased the effectiveness of the emergency plan. Emergency Plan Implementing Procedure 99, "EPIP Standard Appendices," Revision 2, removed from

two emergency action levels site boundary exposure rate as measured in the environment as a classifiable condition.

Implementation of changes to emergency action levels, which decreased the effectiveness of the emergency plan was a performance deficiency. The finding is more than minor because removal of a classifiable condition from licensee emergency action levels has the potential to impact safety, and licensee implementation of a change to their emergency plan, which decreases the effectiveness of the plan without prior NRC approval, impacts the regulatory process. This finding is an apparent violation of 10 CFR 50.54(q). The licensee has entered this issue into their corrective action system as Condition Report/Disposition Request 2774185.

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

G

Significance: Mar 18, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CORRECT THE DEVELOPMENT OF PROTECTIVE ACTION RECOMENDATIONS NOT IN ACCORDANCE WITH FEDERAL GUIDANCE

The inspectors identified a noncited violation of 10 CFR 50.54(q). The licensee failed to correct a practice which could result in an evacuation protective action recommendation for segments of the population that would not benefit from evacuation, contrary to federal guidance.

This finding is more than minor because it was associated with a cornerstone attribute and affected the emergency preparedness cornerstone objective to ensure the adequate protection of the public health and safety. This finding is of very low safety significance because this practice could result in an increased dose to the evacuating public by evacuating some areas unnecessarily, but would not prevent the notification of appropriate protective action recommendations to those members of the public who did require evacuation.

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

G

Significance: Dec 15, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE PROCEDURES FOR IMPLEMENTATION OF AN EMERGENCY ACTION LEVEL

The examiners identified a noncited violation of 10 CFR Part 50, Appendix E, IV.B, for inadequate procedures for implementation of an emergency action level. Emergency Action Level 3-13 requires that an Alert be declared if "major damage to irradiated fuel" is accompanied by a "valid high radiation alarm on the associated radiation monitor." However, the phrase "major damage to irradiated fuel" is not defined in any site procedure, nor is it defined, clarified, or addressed through operator training such that operators would know when conditions meet the threshold for declaring an Alert as a result of damage to irradiated fuel. This deficiency was evidenced during the examination by the fact that the examination authors, examination reviewers, and five of the seven license applicants taking the examination did not recognize conditions that warranted declaring an Alert using Emergency Action Level 3-13. The licensee was evaluating a clarifying change to Emergency Action Level 3-13 and its bases documents and has documented this issue in Condition Report/Disposition Request 2761670.

The finding is a performance deficiency in that the licensee failed to identify that Emergency Action Level 3-13 would not be properly implemented without objectively defining the phrase "major damage to irradiated fuel" in either plant procedures or operator training. The finding is more than minor because it affects the Emergency Preparedness Cornerstone of procedural quality in that it could result in a failure to declare an Alert emergency classification when conditions warrant. The finding is of very low safety significance since it was a failure to comply with a regulatory requirement associated with a Risk-Significant Planning Standard that did not result in the loss or degradation of that Risk-Significant Planning Standard function.

Inspection Report# : [2004301\(pdf\)](#)

Occupational Radiation Safety

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Significance: Oct 05, 2004

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH HIGH RADIATION AREA TECHNICAL SPECIFICATION REQUIREMENT

The inspector reviewed a self revealing non-cited violation of Technical Specification 5.7.1.b because a radiation worker could not hear the electronic dosimeter alarm. Specifically, on September 30, 2003, a radiation worker, in a high radiation area, could not hear the electronic dosimeter alarm for approximately thirty minutes. The individual did not respond to the alarm until after entering another area with lower ambient noise. The licensee determined that the individual had a hearing deficiency. This occurrence was entered into the licensee's Corrective Action Program as Condition Report/Disposition Request 2689876.

The failure to provide an effective alarming dosimeter to a worker entering a high radiation area is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective because the failure to hear an electronic dosimeter alarm 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.

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

Public Radiation Safety

Significance:  Feb 04, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SHIP RADIOACTIVE MATERIAL CORRECTLY

The team reviewed a self-revealing, non-cited violation of 10 CFR 71.5, which occurred when the licensee failed to ship radioactive material correctly. A radioactive shipment classified as an "excepted package-limited quantity" exceeded the external dose rate limitation of 0.5 millirem per hour because licensee personnel failed to ensure that the package contents could not shift during transportation. The package recipient identified dose rates of 0.8 millirems per hour on the exterior surface of the package and notified the licensee of the problem.

The finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (human performance) and it affected the associated cornerstone objective because the failure to correctly ship radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. However, this finding cannot be evaluated by the Public Radiation Safety Significance Determination Process because it does not involve radioactive shipments classified as Schedule 5 through 11, as described in NUREG-1660, and it does not fit traditional enforcement. Therefore, the finding was reviewed by NRC management and determined to be of very low safety significance. Additionally, this finding had cross-cutting aspects associated with human performance (personnel). The individual directly contributed to the finding when the licensee's shipper failed to ensure that the package contents could not shift. The finding was placed into the licensee's corrective action program.

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

Significance:  Feb 04, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONTROL RADIOACTIVE MATERIAL

The team reviewed a self-revealing, non-cited violation of Technical Specification 5.4.1, which occurred when the licensee failed to prevent radioactive material from leaving the radiological controlled area and the protected area. A tape measure worn on the lanyard of a radiation protection technician was not evaluated for the presence of radioactive material before its release from the radiological controlled area. The licensee discovered the radioactive material when the individual was whole body counted; however, the discovery was fortuitous because the licensee's procedural guidance did not specify that items, such as the lanyard, be worn consistently during the whole body counting process. The quantity of radioactive material on the tape measure would have been identified by the licensee's cabinet radiation detectors had the radiation protection technician used one as required.

The finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (human performance) and it affected the associated cornerstone objective because the failure to control radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance because: (1) it was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem, and (4) the number of occurrences was not greater than five. Additionally, this finding had cross-cutting aspects associated with human performance (personnel). The individual directly contributed to the finding when the radiation protection technician failed to use the established process to evaluate the tool for radioactive contamination. The finding was placed into the licensee's corrective action program.

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

Physical Protection

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

Miscellaneous

