

San Onofre 2

Initiating Events

 **Significance:** Jun 30, 2002

Identified By: NRC

Item Type: FIN Finding

SBCS miscalibration

The inspectors determined that the licensee implemented an inadequate procedure to calibrate the Unit 2 steam bypass control system, causing the system to malfunction, resulting in an automatic main steam isolation and reactor trip. The issue was considered more than minor because it resulted in an excessive secondary system cooldown and posed an unnecessary challenge to the reactor protection system. However, the finding was considered to have very low safety significance because the reactor trip was uncomplicated, operations personnel quickly placed the plant in a stable shutdown condition, and secondary mitigation equipment remained available. The inspectors considered an apparent cause to the event to be poor procedure development and review. The inspectors concluded that there was a crosscutting aspect of human performance that directly contributed to the event.

Inspection Report# : [2002005\(pdf\)](#)

 **Significance:** Jun 16, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Inadvertent reactor cavity leakage to SG 2E088

The inspectors identified a noncited violation for a lapse in procedural compliance that resulted in a leak path for water from the reactor refueling cavity across a steam generator nozzle dam to the cold leg side of Steam Generator 2E088. This was a violation of 10 CFR Part 50, Appendix B, Criterion V. This issue was more than minor because it resulted in an inadvertent leak from the reactor coolant system of approximately 1500 gallons. The finding was considered to have very low safety significance because the leak rate was very small (approximately 0.3 gallons per minute), and the leak was quickly isolated once it was identified. This violation is in the licensee's corrective action program as Action Request 020601156.

Inspection Report# : [2002002\(pdf\)](#)

 **Significance:** Jul 08, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow annunciator response procedure for boric acid makeup flow mismatch.

Operators on two different crews failed to comply with a Unit 2 annunciator response procedure. During planned borations of the reactor coolant system, an equipment malfunction resulted in more boric acid being added to the reactor coolant system than was planned by the operators. Actual boric acid flow rate deviated from programmed flow rate by greater than the annunciator setpoint, and operators failed to stop the boration, contrary to the procedure. The failure to follow procedures and stop the boration contributed to the excess boration of the reactor coolant system. These failures constitute two examples of a violation of Technical Specification 5.5.1.1.a. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000601485. Additionally, the inspectors observed poor chemical and volume control system procedural use during a simulator scenario. The issue was characterized as a "green" finding using the significance determination process. This issue was determined to be of very low safety significance because mitigation equipment was not affected.

Inspection Report# : [2000007\(pdf\)](#)

Significance:  Apr 07, 2000

Identified By: Licensee

Item Type: FIN Finding

Operator performance contributed to dropping a control element assembly.

Licensed operators responding to a control element assembly timer failure alarm skipped steps in the procedure for placing a control element assembly on the maintenance hold bus. Although allowed by procedure, this omission, combined with the initial electrical problem, caused the control element assembly to drop, which resulted in a plant transient. The issue was characterized as a "green" finding using the significance determination process. This issue was determined to be of very low significance because mitigation equipment was not affected.

Inspection Report# : [2000006\(pdf\)](#)

Mitigating Systems

Significance:  Jul 12, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

SIT 2T007 water movement to RWST 2T005

The inspectors identified a noncited violation after the licensee implemented an inadequate procedure which resulted in a loss of inventory from the Unit 2 safety injection system to the refueling water storage tank. This was a violation 10 CFR Part 50, Appendix B, Criterion V. The event was considered more than minor because use of the inadequate procedure caused an unnecessary loss of inventory from the safety injection system and rendered a safety injection tank inoperable earlier than the licensee intended. The finding, however, was determined to have very low safety significance because the transfer of water lasted for only 10 minutes and the safety injection tank did not exceed its Technical Specification allowed outage time. The end point of the procedure resulted in the safety injection tank being refilled, and the other three safety injection tanks remained operable throughout the event. The inspectors considered an apparent cause to the event to be poor procedure development and review. The inspectors concluded that there was a crosscutting aspect of human performance that directly contributed to the event.

Inspection Report# : [2002005\(pdf\)](#)

Significance:  Mar 23, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Lack of corrective actions for screenwash system water hammer

The inspectors identified a noncited violation for the licensee's lack of corrective action to mitigate a water hammer condition in screenwash system piping until prompted by the inspectors. This issue was more than minor because this condition had the potential to affect the operability of the safety-related saltwater cooling pumps. This was a violation of 10 CFR Part 50, Appendix B, Criteria XVI. The finding was considered to have very low safety significance because the screenwash piping remained within ANSI codes for allowable stress, no actual rupture of screenwash piping occurred, and the operability of the saltwater cooling pumps was not actually affected by the condition. This violation is in the licensee's corrective action program as Assignment 26 to Action Request 010300938.

Inspection Report# : [2001014\(pdf\)](#)

Significance:  Mar 23, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

Inoperable train of the CREACUS system

Operators did not properly change the recorder paper and therefore unknowingly caused the flow-indicating controller

and one train of the control room emergency air cleanup system to be inoperable. This issue was more than minor because it had the potential to affect the integrity of the control room envelope. This was a violation of Technical Specifications 3.0.4 and 3.0.3 for Units 2 and 3, respectively, and was characterized as a noncited violation. This finding was of very low safety significance because the issue only represented a degradation of the radiological barrier function of the control room. This violation is in the licensee's corrective action program as Action Request 011001218. Inspection Report# : [2001014\(pdf\)](#)

G

Significance: Mar 09, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate measures to assure that design basis information is correctly translated and maintained

A noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified, with two examples, for having inadequate measures to assure that the design basis of the shutdown cooling heat exchangers, and safety-related room coolers supplied by the emergency chilled water system, were correctly translated into procedures or were maintained, respectively. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This violation was entered into the licensee's corrective action program as Action Requests 000401144 and 010300419. The violation was of very low safety significance because: (1) there were no audible indications of damage to the shutdown cooling heat exchangers and there was not a history of leaks for the heat exchangers; and (2) the total emergency chilled water flow exceeded the system design basis and the preliminary test data, along with calculations, provide assurance that adequate flow can be supplied to each safety-related room cooler.

Inspection Report# : [2001003\(pdf\)](#)

G

Significance: Jan 06, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate corrective actions for containment spray alignment verification

The inspectors identified that, although the licensee discovered deficiencies in the performance of the containment spray monthly alignment checks in both units (Technical Specification Surveillance Requirement 3.6.6.1.1), the licensee failed to implement corrective actions to correct the deficiencies. Therefore, for the next 6 months, the licensee did not always conduct the system monthly alignment as required by Technical Specifications. The licensee ultimately re-identified the same deficiencies in the monthly alignment check and corrected the problem. This was a violation of 10 CFR Part 50, Appendix B, Criterion XVI, which requires that conditions adverse to quality be promptly identified and corrected. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 001201139. Additionally, during review of the second occurrence, the licensee failed to discover that the issue had been previously identified until so informed by the inspectors. Human performance in the review of the initial Action Request was inadequate and directly caused the failure to implement corrective actions. Using the significance determination process the inspectors determined that the issue was of very low significance because the system was in the correct valve alignment and remained operable.

Inspection Report# : [2000015\(pdf\)](#)

Significance: SL-IV Jan 06, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to report missed surveillance

The licensee failed to submit a licensee event report within 30 days of the discovery of a reportable condition in both units. The licensee ultimately reported the condition 6 months later when the same situation was re-identified. This was a violation of 10 CFR 50.73(d). This Severity Level IV violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 001201139. Human performance in the review of the initial Action Request was inadequate and directly caused the failure to submit a licensee event report. This issue had no credible impact on safety and was not evaluated using the significance determination process. However, this issue had the potential for impacting the NRC's

ability to perform its regulatory function and is therefore being documented.

Inspection Report# : [2000015\(pdf\)](#)

Significance: SL-IV Dec 07, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to perform an adequate written safety evaluation

The licensee failed to perform an adequate written safety evaluation for a change made to the facility as described in the Updated Final Safety Analysis Report. The licensee issued a use-as-is disposition for a malfunctioning vent valve on Unit 2 Safety Injection Tank 2T008. The licensee's written safety evaluation was inadequate in that it did not recognize that the condition resulted in a unreviewed safety question. Specifically, the valve's condition created the possibility of a malfunction of equipment important to safety of a different type than any evaluated in the Updated Final Safety Analysis Report because it created a situation where a single failure of the tank isolation valve to close could result in a 4-hour delay in reaching conditions needed for shutdown cooling, increasing dose consequences and complicating recovery actions following a loss-of-coolant accident. The safety significance of the malfunctioning safety injection tank vent valve was very low because the tank isolation valve was functional and could have been used to offset the venting problem. Also, an accident recovery could have proceeded successfully, though possibly delayed by up to 4 hours, even if the safety injection tank could not have been vented or isolated (i.e., the isolation valve failed to close). Therefore, the violation of 10 CFR 50.59 (b)(1) identified above is categorized at Severity Level IV and is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy (EA 00-301). This violation was entered into the licensee's corrective action program as Action Request 001201281.

Inspection Report# : [2000015\(pdf\)](#)



Significance: Nov 02, 2000

Identified By: Licensee

Item Type: FIN Finding

Common boration flowpath closed during Mode 4

Operators rendered both boration flowpaths required by Technical Specification 3.1.9 inoperable by closing a normally locked-open valve in the common flowpath during Mode 4 valve testing. This event occurred during the Cycle 10 refueling outages (1998) for both Units 2 and 3. At the time, the licensee did not realize that the condition was not allowed and therefore did not enter Technical Specification 3.0.3. However, the licensee satisfied the required actions of Technical Specification 3.0.3, so a violation did not occur. Although required by the licensee's Technical Specifications, boration capability is not required in Mode 4 in the current Generic Standard Technical Specifications, as boration is not important or urgent in accident mitigation from Mode 4 conditions. Using the significance determination process the inspectors determined that the issue was of very low significance.

Inspection Report# : [2000015\(pdf\)](#)



Significance: Oct 14, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

CREACUS boundary in-leakage outside the design basis.

The licensee determined that air in-leakage into the control room emergency air cleanup system was outside the design basis. The condensate drain lines to both normal air conditioner units and several tears in an expansion boot provided a pathway for unfiltered air. The licensee determined that both conditions existed for several years, and that the aggregate unfiltered air in-leakage exceeded the limit assumed in the Updated Final Safety Analysis Report. This was a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000400061. The licensee determined that the radiological consequences to control room occupants would meet the 10 CFR Part 50, Appendix A, Criterion 19, control room habitability dose limits during a design basis event. Using the significance determination process, the inspectors determined that the issue was of very low safety significance (green) because the dose to control room occupants would not have exceeded general design criterion limits.

Inspection Report# : [2000013\(pdf\)](#)

Significance:  Sep 27, 2000

Identified By: NRC

Item Type: FIN Finding

CREACUS not seismically qualified

The licensee reported (Licensee Event Report 50-361; 362/2000-010-00) that a cracked weld on the electrical power supply conduit coupling connection for the Train B control room emergency air cleanup system recirculation fan could prevent the train from performing its safety function during a seismic event. The issue is in the licensee's corrective action program as Action Request 000801751. The issue was of very low safety significance, because only one cornerstone was involved, only one train was affected, and there was no actual loss of safety function.

Inspection Report# : [2001003\(pdf\)](#)

Significance:  Aug 26, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to implement timely corrective actions for corroded-open ventilation dampers.

The licensee failed to implement timely corrective actions after a damper in the ventilation system for the saltwater cooling pump rooms was found stuck open because of excessive corrosion and a linkage arm that was found missing in December 1999. This was a violation of 10 CFR Part 50, Appendix B, Criterion XVI, which requires that conditions adverse to quality be promptly identified and corrected. The damper was not completely repaired and similar dampers, later found stuck open, were not promptly corrected. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000801431. Using the significance determination process the inspectors determined that the issue was of very low safety significance (green) because the saltwater cooling pumps remained operable.

Inspection Report# : [2000010\(pdf\)](#)

Significance:  Aug 26, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to perform response time surveillance of LOVS relays because of inadequate corrective actions.

The licensee failed to include all required relay paths in its biennial response time testing of loss of voltage circuits. The inspectors identified that the test procedure did not include the 127X1 relays. When tested, 4 of the 16 relays failed the acceptance criteria specified in Surveillance Requirement 3.3.7.3. The relays had been functionally tested satisfactorily, but the response time had not been tested since 1997. This deficiency had been previously identified by the licensee in 1997, as documented in Licensee Event Report 361; 362/1997-001-03. At that time the licensee tested the relays using maintenance orders. However, the licensee failed to update the surveillance procedure, as it committed to do in the licensee event report, resulting in the relays not being tested during the 1999 performance of the surveillance procedure. The failure to correct the procedures in a timely manner was a violation of 10 CFR Part 50, Appendix B, Criterion XVI, which requires that conditions adverse to quality be promptly identified and corrected. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000800580. The licensee determined that the as-found response time of the relays, while less than the minimum allowed value specified in the surveillance requirement, was within the limits of the licensee's safety analysis. The inspectors used the significance determination process and determined that the condition was of very low safety significance because operability of the system was not adversely affected.

Inspection Report# : [2000010\(pdf\)](#)

Significance:  Jun 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to monitor SWC system performance as required.

The licensee failed to correctly count unavailability hours for the Unit 2, Train B, and Unit 3, Train A, saltwater cooling system. This error resulted in these trains exceeding the licensee's performance criteria, which were therefore required to have been monitored under 10 CFR 50.65(a)(1). The licensee failed to set goals and monitor these trains of saltwater cooling, as required by 10 CFR 50.65(a)(1), as a result of the preventive maintenance program not effectively controlling the performance of the systems. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000700218. The inspectors determined that the failure to establish performance goals and corrective actions to achieve those goals resulted in the systems being less available, which was a credible impact on safety. Using the significance determination process, the inspectors determined that the issue was of very low safety significance (green) because operability of the trains was not affected beyond the allowed outage times specified in the Technical Specifications.

Inspection Report# : [2000010\(pdf\)](#)



Significance: May 20, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Scaffolding standoff distance less than allowable by procedure.

The licensee failed to follow its procedure for scaffolding erection, in that the inspectors identified multiple examples of inadequate standoff distances between the scaffolding and safety-related components of the safety injection and shutdown cooling systems in both units. This was a noncited violation of Technical Specification 5.5.1.1.a, which requires that procedures be followed. The licensee's initial corrective actions were prompt but not thorough. The licensee subsequently identified additional examples of inadequate standoff distances in scaffolding around other safety systems, indicating that the problem was programmatic. The violation was in the licensee's corrective action program as Action Requests 000401202 and 000401588. The issue was characterized as a "green" finding using the significance determination process. No components were rendered inoperable; therefore, the issue was determined to be of very low significance.

Inspection Report# : [2000006\(pdf\)](#)



Significance: May 20, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Incorrect operability curves for saltwater cooling.

The inspectors identified that licensee design engineers failed to correctly translate the design basis required minimum saltwater cooling flow into operability curves used by Station Technical engineers. This was a noncited violation of 10 CFR Part 50, Appendix B, Criterion III. The violation is in the licensee's corrective action program as Action Request 000400107. The issue was characterized as a "green" finding using the significance determination process. The operability curves were nonconservative; however, they did not result in any incorrect saltwater cooling operability assessments during the last 2 years; consequently, this issue was determined to be of very low significance.

Inspection Report# : [2000006\(pdf\)](#)



Significance: May 20, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

Design issue renders air-operated saltwater cooling valve inoperable.

The licensee determined that one Unit 2 Train A saltwater cooling pump discharge isolation valve was inoperable since November 1998 as the result of the recognition that leakage from emergency air accumulators could result in the valve not remaining in its safety position following a loss of instrument air. Although the redundant pump and valve in Train A were generally available, they were not aligned for automatic operation. Consequently, Train A was inoperable for

extended periods while the affected pump and valve were aligned for service. This was a noncited violation of Technical Specification 3.7.8 and was in the licensee's corrective action program as Action Requests 000401454 and 000500354. All of the saltwater cooling pump discharge valves, and the component cooling water return isolation valves from shutdown cooling heat exchangers, in both units, were incrementally found to be inoperable before more rigorous analysis showed only one valve had been inoperable. The inspectors identified a significant error in the licensee's initial operability assessment that resulted in all Train A saltwater cooling pump discharge isolation valves being considered inoperable before the final evaluation was completed. The issue was characterized as a "green" finding using the significance determination process. The inspectors agreed with the licensee's determination that both trains of saltwater cooling were functional, although manual operator actions were required to align redundant equipment. Phase 3 of the significance determination process, performed by a Senior Reactor Analyst in conjunction with the licensee, accounted for both internal and external events, which, in part, may result in the loss of instrument air, concluded that the issue was of very low significance.

Inspection Report# : [2000006\(pdf\)](#)

Significance:  Apr 21, 2000

Identified By: NRC

Item Type: FIN Finding

Prior to initial startup, the licensee failed to identify an analyze for additional axial pipe stress that resulted from a modification

The licensee failed to account for additional axial loading induced on the inlet nozzles of the component cooling water pumps through bellows-type expansion joints when a modification introduced a credible single failure with the potential to increase maximum system pressure. The initial stress analysis assumed a 50 psig suction pressure, but the single failure was calculated to result in pressure up to 72 psig. This was considered to be potentially significant, because component cooling water removes heat from essential components required for normal and emergency shutdown of the plant. The licensee calculated the additional stress to verify the safety function performance of the pumps under the new conditions. The analytical result confirmed that the issue was of very low risk significance and there was no actual loss of safety function.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Apr 21, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Current configuration outside design basis for ECCS room temperature in Units 2 & 3

The team identified a condition in both trains of emergency core cooling for both units where the pump rooms were outside the design basis for assuring operability. The team observed that most of the emergency core cooling system piping, valves, pumps, and equipment in these rooms was not thermally insulated. These rooms contained the emergency core cooling system high pressure safety injection, low pressure safety injection, and containment spray pumps, along with associated piping, valves, and instrumentation. The noninsulated piping was contrary to the assumptions used in the design basis calculations to determine the heat loads in these rooms. The heat loads from these calculations had been used in turn as the design bases for sizing the room emergency coolers. Therefore, the room coolers were undersized and would not maintain the environmental conditions needed to satisfy the analysis for the design basis accident to assure adequate performance of the safety-related components and systems located in the affected rooms. The licensee's staff used conservative assumptions to determine the worst conditions that would exist in the rooms during the design basis accident and recovery. The equipment and commodity items in the rooms were verified as capable of performing under the predicted conditions. This was identified as a noncited violation (50-361;362/0003-01) of Criterion III of Appendix B to 10 CFR Part 50 consistent with Section VI.A of the NRC Enforcement Policy, and was placed in the licensee's corrective action system as Action Request 000401086, dated April 19, 2000.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Apr 21, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Operating procedures not corrected to address credible single and loss of design basis for control room HVAC

Failure to change procedures affected by a design change to the air flow detection in both trains of the control room ventilation recirculating system, introduced a credible single failure that was not previously identified. The current method of detecting and measuring control room ventilation flow would not result in a supply fan shutdown when a loss of the train recirculating fan occurred due to loss of power, if the train supply and recirculating fans were powered from different units. Therefore, in a design basis accident the control room supply fan would have continued to operate and discharge potentially radioactive air directly into the control room through return ducts and registers, bypassing the recirculating system high efficiency particulate air filter and gaseous absorption train. As a result, the design basis for the control room environment would not have been met, and there could have been a potential whole-body radiation exposure to the control room operators, beyond regulatory limits. Procedures, policies, and practices in effect during the inspection, did not preclude operation in the configuration that could result in the scenario of concern, or warn the operators that the condition could occur. The team assessed the condition and determined it to be GREEN with the inappropriate system lineup. However, system operability concerns became moot when the licensee put the power supplies for the system trains under administrative configuration control. The team identified this issue as a noncited violation (50-361;362/0003-02) of Criterion III of Appendix B to 10 CFR Part 50, consistent with Section VI.A of the NRC Enforcement Policy. The condition resulting in the violation was entered into the licensee's corrective action system as Action Request 000400949, dated April 17, 2000.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Apr 08, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow procedure for transient combustible material in battery rooms.

The inspectors identified that rubber matting in the four Unit 2 Class 1E battery rooms had not been included in the licensee's transient combustible control program as required by station procedures. The licensee confirmed that the same condition existed in the Unit 3 battery rooms and in five other spaces. The licensee subsequently determined that the matting did not cause any of the spaces to exceed the limit for transient combustible fire loading. This violation of Technical Specification 5.5.1.1.d is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 000600911. The issue was characterized as a "green" finding using the significance determination process. The issue was determined to be of very low safety significance because the total fire loading, including the previously unevaluated materials, did not exceed the allowable fire loading for any affected areas.

Inspection Report# : [2000007\(pdf\)](#)

Barrier Integrity

Significance:  Oct 08, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

Cooldown limits exceeded when last RCP stopped.

Operators failed to follow the procedure for stopping the last running reactor coolant pump and therefore caused a cooldown rate of the reactor coolant system in excess of limits. This was a violation of Technical Specification 5.5.1.1.a. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 001000469. The failure to follow the procedure was a human performance deficiency that was the direct cause of exceeding the cooldown rate. Based on consultation with an NRC regional senior reactor analyst and review of the licensee's evaluation of the event, the inspectors concluded that the issue was of very low safety significance because the reactor vessel remained operable.

Inspection Report# : [2000014\(pdf\)](#)

Significance:  Oct 08, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

RCS cooldown in excess of limits not detected because of failure to properly perform surveillance

As a result of switching instrumentation used to monitor the reactor coolant system cooldown and then reinitializing the cooldown log, the operators failed to verify the cooldown rate. This caused the operators to fail to promptly identify a cooldown rate of the reactor coolant system in excess of limits. This was a violation of Technical Specification Surveillance Requirement 3.4.3.1. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 001000469. Operator human performance in the implementation of the surveillance was a contributing cause of not promptly detecting that the cooldown rate limit had been exceeded. Based on consultation with an NRC regional senior reactor analysts and review of the licensee's evaluation of the excessive cooldown event, the inspectors concluded that the issue was of very low safety significance because the reactor vessel remained operable.

Inspection Report# : [2000014\(pdf\)](#)

Emergency Preparedness

Significance: N/A Aug 26, 2000

Identified By: NRC

Item Type: FIN Finding

Drill performance affected by scenario foreknowledge.

Performance during some of the 10 emergency preparedness drills, all of which used the same scenario, was affected by scenario foreknowledge. Some operators were able to hear elements of the scenario over the public address systems during a morning drill before they participated in the afternoon drill. Also, some personnel participated in more than one drill. Drill performance is measured and reported as a performance indicator and, if credit for correctly performing critical tasks (event classification, event notification, and protective action recommendations) is given when the performer or direct advisors have foreknowledge of the correct outcome, the performance indicator might not be valid. Therefore, this has the potential to affect the ability of the NRC to perform its regulatory function. This issue had no credible impact on safety and was not evaluated using the significance determination process because it did not involve a failure to meet or implement a planning standard or other regulatory requirement.

Inspection Report# : [2000010\(pdf\)](#)

Occupational Radiation Safety

Significance:  Jan 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Release of radioactive material from the restricted area

Technical Specification 5.5.1 requires procedures for the control of radioactivity. Procedure SO123-VII-20.9.2, "Material Release Surveys," Revision 3, Section 6.1, states that the criterion for items released from the Restricted Area is, "No detectable licensed activity above background." On both August 18, 2000, and October 31, 2001, the licensee identified an example in which detectable radioactive material was inadvertently released from the restricted area. These two events were entered into the licensee's corrective action program as Action Requests AR 000800974 and AR 011001703. The safety significance of this finding was determined to very low by the Public Radiation Safety Significance Determination Process because the public exposure associated with each item was less than 5 millirem and there were fewer than 6 events.

Inspection Report# : [2002003\(pdf\)](#)

Significance:  Aug 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

Failure to post a radiation area

10 CFR Part 20.1902 requires an area with radiation levels greater than 5 millirem per hour, but less than or equal to 100 millirem per hour, to be posted as a radiation area. On February 1, 2001, the licensee identified that a flatbed trailer with radiation levels as high as 60 millirem per hour on contact and 10 millirem per hour at 30 centimeters was not posted as a radiation area. This event is described in the licensee's corrective action program, reference Action Request 010200033. This is being treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised.

Inspection Report# : [2001011\(pdf\)](#)

Public Radiation Safety

Physical Protection

Significance:  Oct 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Incomplete vehicle search

The inspectors identified a noncited violation for the failure of Security personnel, until prompted by the inspectors, to perform a complete search of a station fire truck prior to the truck entering the protected area. This was a violation of the Physical Security Plan. A human performance deficiency in the search of the vehicle directly contributed to the violation. This finding was of very low safety significance because the inspectors prompted Security personnel to complete the search prior to allowing the vehicle into the protected area (Section 3PP2.2).

Inspection Report# : [2001012\(pdf\)](#)

Significance:  Oct 09, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Loss of visual contact with visitors

The inspectors identified a noncited violation for the failure of a licensee employee to maintain visual contact with visitors while performing escort duties. The escort entered a vital area and left the visitors on the opposite side of the door, unattended, in the protected area. This was a violation of the Physical Security Plan. A human performance deficiency in the escorting of visitors directly contributed to the violation. This finding was of very low safety significance because of the short duration the visitors were left unattended and subsequently observed by the inspectors.

Inspection Report# : [2001012\(pdf\)](#)

Significance:  Aug 24, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Reduction in Security Plan Effectiveness

The inspector identified a noncited Severity Level IV violation, which also had very low safety significance, involving a decrease in the effectiveness of the training and qualification and contingency plans in violation of 10 CFR 50.54(p). During a review of Revision 22 to the licensee Training and Qualifications Plan, dated September 29, 2000, and Revision 24 to the Safeguards Contingency Plan, dated August 29, 2000, the inspector determined that one change to both plans was a reduction in plan effectiveness. The previously approved plans committed to batons and corresponding training in support of contingency plan requirements for response to riots and civil disturbances; however, the changes to the plans removed the requirements to have batons and training without substituting equivalent equipment to support the contingency plan requirement. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as AR 001001889. The safety significance of this finding was determined to be very low by the Physical Protection Significance Determination Process, because there were less than two similar findings in the last four quarters. The issue represented a credible impact on safety because the failure to provide equipment necessary to support the requirements of the Safeguards Contingency Plan could result in unauthorized access to the protected area. In addition, the reduction in plan effectiveness was a violation of 10 CFR 50.54(p). Further, a 10 CFR 50.54(p) plan change that decreased plan effectiveness impeded the regulatory process because it prevented the NRC from reviewing the matter prior to implementation.

Inspection Report# : [2001019\(pdf\)](#)

Significance:  Aug 24, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Inaccurate Information Submitted to NRC

A noncited Severity Level IV violation was identified for failure to provide accurate information to the NRC in accordance with the requirements of 10 CFR 50.9. The licensee submitted a "white paper" to the NRC on October 17, 2000, to provide information to dispute the issue involving the 10 CFR 50.54(p) change associated with the use of the batons. A portion of that document stated that, "Based on agreements with the FBI, it was determined the FBI was better equipped/trained to handle public disturbances at the site." Based on subsequent inspection, the NRC determined that the FBI was not better equipped/trained to handle public disturbances. The failure to provide accurate information to the NRC impeded the regulatory process in that the NRC could have incorrectly approved the plan change based on the information presented in the "white paper." This Severity Level IV violation is being treated as a noncited violation consistent with Section IV.A.1 of the NRC Enforcement Policy. This severity Level IV violation is in the licensee's corrective action program as AR 010101660-08

Inspection Report# : [2001019\(pdf\)](#)

Significance:  May 09, 2001

Identified By: NRC

Item Type: FIN Finding

Vulnerability in Protective Strategy

During an Operational Safeguards Response Evaluation conducted on November 28-29, 2000, a vulnerability in the licensee's protective strategy was identified that could have resulted in the simulated loss of a target set. Further details (safeguards information) are available in NRC Inspection Report 50-361;-362/2000-17. The issue was entered into the licensee's corrective action program as Action Request 001200130. The safety significance of this finding was determined to be very low by the Physical Protection Significance Determination Process because it was not repeatable or predictable. The issue was more than minor because the potential loss of a target set represents a credible impact on safety and impacts a key performance attribute of the Physical Protection Cornerstone.

Inspection Report# : [2000017\(pdf\)](#)

Inspection Report# : [2001009\(pdf\)](#)

Significance:  May 09, 2001

Identified By: NRC

Item Type: FIN Finding

Lack of Response Force Timelines

During an Operational Safeguards Response Evaluation conducted on November 28-29, 2000, the inspectors determined that the licensee had not developed response force timelines which could have affected the licensee's and the NRC inspection team's ability to evaluate its protective strategy. Further details (safeguards information) are available in Inspection Report 50-361;-362/2000-17. The issue was entered into the licensee's corrective action program as Action Request 001200130. The safety significance of this finding was determined to be very low by the Physical Protection Significance Determination Process because there had not been more than two similar findings in the past year. The issue was more than minor because the lack of response force timelines is a vulnerability in safeguards plans that represents a credible impact on safety and impacts a key performance attribute of the Physical Protection Cornerstone.

Inspection Report# : [2000017\(pdf\)](#)

Inspection Report# : [2001009\(pdf\)](#)

Significance:  Jul 21, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to identify and post a protected area breach.

The licensee created a breach of the protected area boundary during the removal of a Unit 1 turbine plant cooling water system spool piece and failed to identify and post the breached boundary with a security guard for 6 days. This violation of the physical security plan is being treated as a Non-Cited Violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request 991100485. This issue was determined to be of very low risk significance because of the difficulty for an individual to enter the protected area through the breached pathway. Even though the issue was a vulnerability of a safeguards system, using the physical protection significance determination process, the team characterized the issue as green because it did not involve an intrusion and there were no additional similar findings in the past four quarters.

Inspection Report# : [2000009\(pdf\)](#)

Miscellaneous

Significance: N/A Jul 20, 2001

Identified By: NRC

Item Type: FIN Finding

Licensee's problem identification and resolution program was effective

The licensee identified, evaluated, prioritized, and correct problems in a timely and effective manner, consistent with risk and safety significance. However, there were isolated instances in which the licensee missed an opportunity for early problem identification, did not formulate corrective actions for all identified causes, and implemented corrective actions that were not effective in preventing recurrence of a problem. Licensee audits and assessments critically assessed the licensee's problem identification and resolution activity and identified needs for improvement in a number of areas including performance of 10CFR50.59 evaluations, establishment of realistic due dates, and the probing and evaluative quality of organizational quarterly self-assessments. During inspection interviews, workers at the site expressed no reservations to input safety issues into the problem identification and resolution program.

Inspection Report# : [2001007\(pdf\)](#)

Significance: N/A Feb 17, 2001

Identified By: NRC

Item Type: FIN Finding

Nonlicensed person manipulated controls of the facility

During control element drive mechanism control system diagnostic testing, instrumentation and controls technicians (not a licensed operator or senior operator) used a test card and raised a control element assembly one step and then returned it back to its original position, therefore manipulating the controls of the facility. This was a violation of 10 CFR 50.54(i) which requires, in part, that the licensee may not permit the manipulation of the controls of any facility

by anyone who is not a licensed operator or senior operator. This failure constitutes a violation of minor significance and is not subject to formal enforcement action. This violation is in the licensee's corrective action program as Action Request 001101366. This issue had no credible impact on safety and was not evaluated using the Significance Determination Process, because the licensee's actions caused only a negligible reactivity change, while the reactor was shut down with significant shutdown margin. However, the issue is being documented because the associated technical information relates directly to an issue of potential generic interest.

Inspection Report# : [2001002\(pdf\)](#)

Significance: N/A Jul 21, 2000

Identified By: NRC

Item Type: FIN Finding

The facility's corrective action program was effective.

The licensee was effective at identifying problems and entering these problems into the corrective action program. The licensee's self-assessments were found to be effective as evidenced by the identification of a deficiency involving the corrective action followup process, which was also identified by the team. The licensee effectively prioritized the extent to which issues would be evaluated consistent with their safety and risk significance and established appropriate schedules for implementation of corrective actions. With the exception of two examples, the licensee implemented corrective actions that were timely and effective. The team concluded that these two examples were isolated and were not indicative of current licensee performance in the corrective action area.

Inspection Report# : [2000009\(pdf\)](#)

Last modified : December 02, 2002