

## Point Beach 2

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### Initiating Events

**Significance:** N/A Nov 02, 2001

Identified By: NRC

Item Type: FIN Finding

#### **SUPPLEMENTAL INSPECTION FOR WHITE PERFORMANCE INDICATOR**

This supplemental inspection was performed to assess the licensee's evaluation of the Unplanned Scrams per 7,000 Critical Hours Performance Indicator (PI) for Unit 2 which transitioned from Green to White in the second quarter of 2001. The evaluation was determined to be acceptable. The licensee utilized a structured approach to evaluate the circumstances of the individual plant trips and the collective significance of the four trips to identify potential common causes. The inspector determined that corrective actions for each of the plant trips contributing to the White PI corresponded with the root and contributing causes identified by the root cause evaluations. The corrective actions were either completed or being tracked for completion. In two of the four trips, the corrective action and root cause program established a process for performing assessment reviews to assess the effectiveness of corrective actions. Due to the licensee's acceptable performance in addressing the root and contributing causes of the individual plant trips which contributed to exceeding the licensee response threshold for Unplanned Scrams, the White PI associated with this issue will only be considered in assessing plant performance for a total of four quarters, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."

Inspection Report# : [2001016\(pdf\)](#)



**Significance:** G Dec 31, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

#### **UNPLANNED REACTOR VESSEL LEVEL DECREASE DURING COUPLING OF REACTOR COOLANT PUMP.**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure which resulted in an inadvertent decrease in reactor coolant system inventory during reactor coolant pump coupling while in cold shutdown. The finding was of very low safety significance because residual heat removal was not impacted and the amount of water that could have been drained from the reactor coolant system was limited by system configuration and alignment.

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

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### Mitigating Systems



**Significance:** W Feb 25, 2002

Identified By: NRC

Item Type: VIO Violation

#### **2P-15B Safety Injection Pump Failure During Monthly Preventative Maintenance Lubrication Activity**

White. Unit 2. On February 20, 2002, the 2P-15B safety injection pump failed, during monthly preventative maintenance bearing lubrication activities, due to gas binding caused by back-leakage of nitrogen-saturated water from a reactor coolant system safety injection accumulator. Despite multiple opportunities to have identified the effects of the leaking accumulator, the licensee's organization did not properly respond to adverse accumulator leakage trends or effectively use industry operating experience to prevent failure of the safety injection pump. As documented in the final significance determination letter dated June 13, 2002, the NRC determined that the failure to take prompt corrective actions to preclude repetition after Point Beach personnel concluded that the safety injection system was susceptible to gas binding and when decreasing trends in the Unit 2 A safety injection accumulator level were identified is a violation of Criterion XVI, "Correction Action," of 10 CFR Part 50, Appendix B.

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

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



**Significance:** R Dec 13, 2001

Identified By: Licensee

Item Type: VIO Violation

#### **POTENTIAL COMMON MODE FAILURE OF AUXILIARY FEEDWATER PUMPS DUE TO INADEQUATE PROCEDURAL GUIDANCE**

Units 1 and 2. The licensee identified a potential common mode failure of the auxiliary feedwater pumps due to operator actions specified in plant procedures. The team identified that procedural guidance provided to operators was inadequate to prevent such a common mode failure. In addition, the team identified that the licensee had seven opportunities, from 1981 through 1997, to identify the problem and take appropriate corrective actions. After considering the information developed during the inspection and the information the licensee provided at the April 29, 2002, regulatory conference, the NRC concluded that a violation of 10 CFR Part 50, Appendix B, Criterion XVI, was appropriate for two of the originally proposed seven examples. The failures to provide adequate procedural guidance and to take appropriate corrective actions are both a violation of 10 CFR Part 50, Appendix B, Criteria V and XVI. This issue has been determined to have high safety significance (Red). A common mode failure of the auxiliary feedwater pumps would result in substantially reduced mitigation capability for safely shutting down the plant in response to certain transients. The significance was determined to be high largely due to the relatively high initiating event frequencies associated with the involved transients and the high likelihood of improper operator actions due to the procedural inadequacies. The final significance determination for the Red finding and Notice of Violation were issued to the licensee in a letter dated July 12, 2002.

Inspection Report# : [2001017\(pdf\)](#)



**Significance:** Nov 06, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO TAKE TIMELY CORRECTIVE ACTION REGARDING INADEQUATE CONTROL OF MAINTENANCE ACTIVITIES DURING COLD WEATHER CONDITIONS**

The inspectors identified a Non-Cited Violation (10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action"), in that the licensee failed to take corrective action prior to the onset of freezing temperatures in the fall of 2001 for previously identified problems with the plant's freeze protection system. The finding was considered to be more than minor because the freeze protection system helps to protect safety-related components from freezing and the system's failure could have a credible impact on safety. Because there was no actual failure of safety-related components associated with the mitigating systems cornerstone, the finding is considered to be of very low significance

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



**Significance:** Sep 30, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**NO PROCEDURES TO PREVENT EXCESSIVE FOULING OF SERVICE WATER STRAINERS**

The inspectors identified a Non-Cited Violation (10 CFR Part 50, Appendix B, Criterion V), in that, the licensee failed to provide adequate written instruction to prevent excessive fouling of the service water header strainers. As a result, a condition adverse to quality was self-revealed on September 20, 2001, when auxiliary operators identified, while taking logs, that both the north and south header strainers were excessively fouled. The excessive fouling resulted in the service water system being in a configuration that was beyond design basis analyses. The Non-Cited Violation was considered of low risk significance since, for the plant and environmental conditions at the time of discovery, no actual loss of safety function occurred or would have occurred.

Inspection Report# : [2001013\(pdf\)](#)

**Significance:** N/A Sep 28, 2001

Identified By: NRC

Item Type: FIN Finding

**HUMAN PERFORMANCE CROSS-CUTTING ISSUE DUE TO WEAKNESSES IN FIRE PROTECTION ENGINEERING AREA**

The inspectors identified a number of issues which, collectively, indicated that human performance weaknesses existed in the fire protection engineering area.

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

**Significance:** N/A Sep 28, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**INSUFFICIENT EMERGENCY LIGHTING TO SUPPORT SAFE SHUTDOWN**

The inspectors identified that there was insufficient emergency lighting to support performance of required safe shutdown actions. Specifically, there was insufficient emergency lighting in the Unit 1 and Unit 2 façade areas to support performing confirmatory actions to fail air to the Unit 1 and Unit 2 main steam isolation valves so as to ensure these valves would not spuriously reopen. The failure to have adequate emergency lighting is a violation of 10 CFR Part 50, Appendix R, Section III.J. The finding was greater than minor because a delay in performing safe shutdown actions could occur due to the lack of emergency lighting. The finding was determined to be No Color because the finding did not involve the impairment or degradation of a fire protection defense-in-depth element. Because the finding was of very low safety significance, and the finding was captured in the licensee's corrective action system, this finding is being treated as a NCV consistent with Section VI.A.1 of the NRC Enforcement Policy.

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

**Significance:** Sep 28, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**AUXILIARY FEEDWATER PUMP ROOM HALON SYSTEM INADEQUATE**

The inspectors identified that the automatic fire suppression system for the auxiliary feedwater pump room was not adequate. The installed fire suppression system was only designed for surface fires and was not designed to provide the necessary soak time for deep-seated fires. However, deep-seated fire hazards had been introduced to the room. The failure to have an adequate automatic suppression system is a violation of 10 CFR Part 50, Appendix R, Section III.G.2. The finding was determined to be greater than minor because the finding involved automatic suppression, a fire protection defense-in-depth element. The finding was determined to be of very low safety significance (Green) because the inspectors were not able to postulate a fire scenario which could sustain a deep-seated fire and damage redundant trains of equipment. Because the finding was of very low safety significance, and the finding was captured in the licensee's corrective action system, this finding is being treated as a NCV consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2001012\(pdf\)](#)**Significance:** N/A Sep 28, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**INSUFFICIENT APPENDIX R FUEL OIL SUPPLY**

The inspectors identified that the licensee had failed to maintain a 72-hour fuel supply on-site for generator G-05 relied upon for safe shutdown in the event of a fire. The failure to maintain a 72-hour supply of fuel is a violation of 10 CFR Part 50, Appendix R, Section III.L.3. The finding was greater than minor because the capability to achieve and maintain cold shutdown conditions for 72 hours was not provided. The finding was determined to be No Color because the finding did not involve the impairment or degradation of a fire protection defense-in-depth element. Because the finding was of very low safety significance, and the finding was captured in the licensee's corrective action system, this finding is being treated as a NCV consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2001012\(pdf\)](#)**Significance:** Sep 28, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**POSSIBLE SPURIOUS OPENING OF POWER-OPERATED RELIEF VALVE DURING FIRES**

10 CFR Part 50, Appendix R, Section III.G.1.a required, in part, that one train of systems necessary to achieve and maintain hot shutdown conditions be free of fire damage. As discussed in LER 50-266/1999-006-00; 50-301/1999-006-00, hot shutdown conditions would not have been able to be maintained during the ensuing plant transient which would have resulted from a stuck open pressurizer PORV (power-operated relief valve).

Inspection Report# : [2001012\(pdf\)](#)**Significance:** Aug 07, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**INEFFECTIVE CORRECTIVE ACTIONS FOR FAILURE TO FOLLOW TECHNICAL SPECIFICATIONS CONCERNING COMMON CAUSE FAILURE TESTING OF EMERGENCY DIESEL GENERATORS**

The inspectors identified that the licensee failed to take effective corrective action to preclude repetition of the failure to comply with Technical Specification limiting condition for operation requirements directing testing of redundant standby emergency diesel generator power supplies within 24 hours. A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified. The finding was of very low safety significance because, in both cases of Technical Specification non-compliance, the redundant standby emergency diesel generators were tested satisfactorily, indicating that no actual loss of safety function occurred.

Inspection Report# : [2001011\(pdf\)](#)**Significance:** Jun 30, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**AFW SYSTEM INCORRECTLY RETURNED TO MAINTENANCE RULE (a)(2) STATUS WITHOUT MEETING THE REQUIREMENTS IN THE LICENSEE'S (a)(1) ACTION PLAN**

A Non-Cited Violation [of 10 CFR 50.65] was identified for the licensee erroneously returning the auxiliary feedwater system to (a)(2) status prior to meeting licensee established (a)(1) performance goals in December 2000. The licensee's inaccurate monitoring of system unavailability against established (a)(1) unavailability goals was determined to be the cause of the error. Since no actual loss of the safety function of the auxiliary feedwater system occurred, this issue was evaluated as having very low safety significance.

Inspection Report# : [2001010\(pdf\)](#)



**Significance:** Jun 30, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**USE OF THE STEAM GENERATOR BLOWDOWN ISOLATION INTERLOCK DEFEAT SWITCH COULD RESULT IN LOSS OF SAFETY FUNCTION**

Code of Federal Regulations 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures be established to assure that the design basis specified in the licensee application be correctly translated into procedures and instructions. Contrary to this requirements, the licensee modified steam generator blowdown isolation circuitry to allow defeating the blowdown isolation function during surveillance testing without considering the design basis requirements of the auxiliary feedwater system to provide the heat removal equivalent feedwater flow, 200 gpm, to each unit necessary for post-accident decay heat removal. This issue has been included in the licensee's corrective action program as CR 01-0108.

Inspection Report# : [2001010\(pdf\)](#)



**Significance:** May 08, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**FAILURE TO PROVIDE DIRECT READINGS OF STEAM GENERATOR 'B' PRESSURE PARAMETER WHICH WAS NECESSARY TO PERFORM SAFE SHUTDOWN FUNCTIONS**

10 CFR Part 50, Appendix R, Section III.L.2.d, requires the process monitoring function be capable of providing direct readings of the process variables necessary to perform and control safe shutdown functions. Contrary to the above, the licensee failed to provide direct readings of steam generator 'B' pressure parameter which was necessary to perform safe shutdown functions.

Inspection Report# : [2001008\(pdf\)](#)



**Significance:** May 08, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**FAILURE TO INSTALL THE FIRE STOPS IN A CONFIGURATION WHICH WOULD PREVENT PROPAGATION OF FIRE FROM ONE REDUNDANT TRAIN TO ANOTHER**

10 CFR Part 50, Appendix R, Section III.G.2.b, requires separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards. An exemption to this requirement was granted by the NRC, dated July 3, 1985, which stated that the approved alternative was to install fire stops in the intervening cable trays. Contrary to the above, the licensee failed to install the fire stops in the Unit 1 motor control center room in a configuration which would prevent propagation of fire from one redundant train of charging pump cables to another.

Inspection Report# : [2001008\(pdf\)](#)



**Significance:** May 08, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**REDUNDANT INSTRUMENT CABLES WERE LOCATED WITHIN 20 FEET OF EACH OTHER IN THE UNITS 1 AND 2 CONTAINMENTS**

10 CFR Part 50, Appendix R, Section III.G.2.d, requires separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards inside non-inerted containment. Contrary to the above, redundant cables for several temperature elements and steam generator level instruments were located within 20 feet of each other in the Units 1 and 2 containments.

Inspection Report# : [2001008\(pdf\)](#)



**Significance:** May 08, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**POSTULATED FIRE COULD LEAD TO LOSS OF REDUNDANT TRAINS OF CHARGING PUMPS**

10 CFR Part 50, Appendix R, Section III.L.2.b, requires the reactor coolant makeup function be capable of maintaining the reactor coolant level within the level indication in the pressurizer for pressurized water reactors. Contrary to the above, in eight fire zones, the cables associated with volume control tank and reactor water storage tank outlet valves were routed in the same fire areas. There would be insufficient time to take manual actions to prevent failure of charging pumps credited for maintaining reactor coolant level.

Inspection Report# : [2001008\(pdf\)](#)



**Significance:** May 08, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**REPLACEMENT OF CHARGING PUMP CONTROL POWER FUSE OUTSIDE APPENDIX R DESIGN BASIS**

10 CFR Part 50, Appendix R, Section III.G.1, requires that fire protection features be provided for systems important to safe shutdown so that one train of systems necessary to achieve and maintain hot shutdown conditions is free of fire damage. Contrary to the above, the licensee failed to provide redundant fusing to protect the control cable associated with the credited charging pump which was necessary for hot shutdown condition and was not free of fire damage.

Inspection Report# : [2001008\(pdf\)](#)

**Significance:** N/A Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**TECHNICAL SPECIFICATION REQUIREMENTS FOR TESTING RPS ACTUATION SYSTEM LOGIC NOT SATISFIED**

Technical Specification Table 15.4.1-1, "Minimum Frequencies for Checks, Calibrations, and Test of Instrument Channels," Item 44, "Reactor Protection System and Emergency Safety Feature Actuation System Logic," required monthly testing of Reactor Protection System trips which includes the power range low power trip and the intermediate range high flux trip logics. Contrary to this requirement, a surveillance test requirement was missed when the licensee failed to test the power range low power and the intermediate range high flux trips within 24 hours after reducing power below 10 percent after having operated in excess of 10 percent power for greater than the monthly surveillance test frequency. This issue was entered in the licensee's corrective action program as CR 01-0118.

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

**Significance:** N/A Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO COMPLY WITH LIMITING CONDITION FOR OPERATION ACTION STATEMENT TO START REDUNDNT STANDBY**

Technical Specification 15.3.7.B.1.g required redundant standby emergency power supplies to be started within 24 hours before or after the normal power supply or emergency power supply to Unit 1 A06/B04 or Unit 2 A05/B03 safeguards busses being taken out-of-service. Contrary to this requirement, the licensee identified that the standby emergency power supply to the Unit 2 A05/B03 was out-of- service for 37 hours without the redundant standby emergency power supply being started. This issue was entered in the licensee's corrective action program as CR 00-3475.

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

**Significance:** N/A Feb 12, 2001

Identified By: NRC

Item Type: FIN Finding

**16 VALVES ON UNIT 2 SI SYSTEM WERE LOCKED CLOSED INSTEAD OF JUST CLOSED.**

The inspectors identified that 16 valves in the Unit 2 safety injection system were locked closed instead of just closed as required by plant procedure. The failure to maintain valve position in accordance with applicable plant procedure did not affect the operability, availability, or reliability of the safety injection system and was not evaluated using the Significance Determination Process.

However, the inspectors determined that the extent of the status control errors, the repetitive nature of locked valve problems, and the failure of previously identified corrective actions constituted extenuating circumstances in accordance with Manual Chapter 0609.

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



**Significance:** Feb 12, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**INADEQUATE CONTROL OF CABLE SPREADING ROOM HIGH ENERGY LINE BREAK BARRIER.**

The licensee's quality assurance organization identified that a 4½-inch pipe built into and penetrating a wall of the cable spreading room, used for temporary running of cables into the room, was being controlled as a fire barrier impairment but not as a high-energy line break barrier impairment. The pipe had not been included in the licensee's procedure on high energy line break barriers. The failure to include the 4½" pipe in Administrative Procedure NP 8.4.16, "PBNP [Point Beach Nuclear Plant] High Energy Line Break Barriers," was considered a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requirements.

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

**Significance:** Dec 31, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE PROCEDURE FOR BYPASSING ALARMS FOR HEAT TRACE CIRCUITS FOR SAFETY-RELATED EQUIPMENT.**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure that specified actions that inappropriately de-energized heat trace circuits for safety-related equipment when the intent was only to bypass alarms. The finding was of very low safety significance because safety-related equipment was not actually rendered inoperable.

Inspection Report# : [2000017\(pdf\)](#)**Significance:** Nov 09, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE PROCEDURE FOR PRESSURE TEST OF RESIDUAL HEAT REMOVAL VALVE.**

On October 11, 2000, the inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure that did not require verification of appropriate automatic overpressure protection on hydrostatic pressure test equipment during valve seat leakage testing on Train "B" of the Unit 2 residual heat removal system. This finding was of very low safety significance because procedurally required manual overpressure protection was available during testing and Train "A" of the Unit 2 residual heat removal system was operable.

Inspection Report# : [2000014\(pdf\)](#)**Significance:** N/A Aug 22, 2000

Identified By: NRC

Item Type: FIN Finding

**SAFETY INJECTION VALVES NOT LOCKED AS REQUIRED BY PLANT PROCEDURE.**

The inspectors identified that 24 valves in the Unit 2 safety injection system were not locked as required by plant procedure. The failure to lock the valves in accordance with plant procedure did not affect the operability, availability, or reliability of the safety injection system and was not evaluated using the Significance Determination Process. However, the inspectors determined that the extent of the status control errors and repetitive nature of the locked valve problems constituted extenuating circumstances in accordance with Manual Chapter 0609. This finding was assigned to Unit 2.

Inspection Report# : [2000009\(pdf\)](#)**Significance:** N/A May 05, 2000

Identified By: NRC

Item Type: FIN Finding

**INADEQUATE OPERABILITY DETERMINATIONS.**

The inspectors identified that operability determinations lacked sufficient engineering basis to support continuing operability calls. The licensee was able to show current system operability, given the plant conditions at the time of the inspection.

Inspection Report# : [2000006\(pdf\)](#)**Significance:** May 05, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**ERRORS IN CALCULATIONS FOR SERVICE WATER TESTING ACCEPTANCE CRITERIA.**

The inspectors identified errors in the calculations providing the uncertainty values for determining the service water inservice testing acceptance criteria. The errors resulted in the lower inservice testing acceptance criteria being below the required design minimum flow. The risk significance of this was low because, at the time of the inspection, all six pumps had flow rates above the minimum acceptance criteria. This issue was considered the first example of a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control."

Inspection Report# : [2000006\(pdf\)](#)**Significance:** May 05, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**ERRORS IN SERVICE WATER TEMPERATURE UNCERTAINTY VALUES.**

The inspectors identified errors in the service water temperature uncertainty values. This resulted in the control room temperature indications being non-conservatively low. The risk significance of this was low because, at the time of the inspection, lake temperatures were below the design basis maximum. This was the second example of a Non-Cited Violation of 10 CFR Part 50,

Appendix B, Criterion III, "Design Control."

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



**Significance:** May 05, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**ERROR IN CALCULATION PUMP NET POSITIVE SUCTION HEAD.**

The inspectors identified a fundamental error in calculating pump net positive suction head which basically concluded that the pumps would have adequate suction even if the intake was completely uncovered. The risk significance of this was low because, at the time of the inspection, forebay level was sufficiently high to ensure the pumps were operable. This was the third example of a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control."

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

## Barrier Integrity



**Significance:** Nov 09, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

**INADEQUATE PROCEDURE FOR SHIELDING PLACEMENT IN FRONT OF CONTROL ROOM WINDOWS.**

An operating procedure did not provide for timely placement of portable shielding in front of control room windows to ensure accident doses to operator would remain below NRC limits. This was contrary to Criterion V, "Instructions, Procedures, and Drawings," of Appendix B of 10 CFR Part 50, requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings.

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

## Emergency Preparedness

**Significance:** TBD Apr 01, 2002

Identified By: NRC

Item Type: URI Unresolved item

**Inadequate Critique of Two Exercise Performance Issues**

Two exercise performance issues, which are associated with emergency preparedness planning standard 10 CFR 50.47(b)(10), were inadequately critiqued by licensee staff. The first issue was associated with the licensee's critique of the initial offsite Protective Action Recommendation (PAR) that its exercise participants communicated to offsite officials. The NRC identified issues that contradicted the licensee's critique conclusion that the initial PAR was a successful performance indicator opportunity with respect to its content. The second issue was the licensee's critique of its participants decision making process on the simulated removal from the site of non-essential personnel, who were not members of the current shift of emergency responders, once all onsite personnel were accounted for. Using the Emergency Preparedness Significance Determination Process, the NRC has made a preliminary determination that the finding was of low to moderate risk significance (White). In accordance with NRC's Enforcement Policy, as published in NUREG 1600, it was determined that there is no apparent violation of NRC requirements since the critique issues were related to an exercise, rather than to an actual emergency.

Inspection Report# : [2002004\(pdf\)](#)

**Significance:** N/A Nov 03, 2000

Identified By: NRC

Item Type: FIN Finding

**SUPPLEMENTAL INSPECTION OF WHITE PERFORMANCE INDICATOR.**

The licensee's initial evaluations and corrective actions associated with the White alert and notification system (ANS) performance indicator (PI) were not adequate. Following the initial NRC onsite inspection and a parallel review by the licensee's quality assurance staff, the licensee performed a comprehensive root cause evaluation of ANS performance. The inspector determined that this evaluation was thorough and effectively identified the root causes of the siren system performance issues. In addition, the licensee fully determined the technical issue that resulted in siren test failures. As a root cause, the licensee concluded that the siren upgrade project was performed outside of the licensee's normal procurement process, which would have provided additional quality assurance, software testing and verification, and project oversight. In addition, the staff did not consistently use the licensee's corrective action system to document system failures. The licensee attributed these failures to a "mindset" among the emergency preparedness staff that resulted in the staff using internal processes instead of normal plant processes. In terms of corrective

actions, the inspector found that the licensee's final planned corrective actions appeared to address the root causes identified in its evaluation. However, the licensee had not yet defined what measures would be implemented to ensure that the effectiveness of these corrective measures were reviewed, nor had the licensee completed its extent of condition review.

Inspection Report# : [2000012\(pdf\)](#)

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## Occupational Radiation Safety



**Significance:** Mar 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

### **WORKER ENTERED A HIGH RADIATION AREA WITHOUT GETTING RADIATION PROTECTION DEPARTMENT APPROVAL OR BRIEF**

Technical Specification Section 15.6.11., Radiation Protection Program, required that an individual entering a high radiation area be under the control of a radiation work permit that includes specification of the radiation dose rates in the immediate work area and other appropriate radiation protection equipment and measures. Contrary to this requirement, during resin transfer operations on February 27, 2001, a laundry decontamination worker entered a high radiation area without getting radiation protection department approval or a brief as required by Radiation Work Permit (RWP) 01-005, Revision 0. This issue was entered in the licensee's corrective action program as CR 01-0611.

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

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## Public Radiation Safety

## Physical Protection

## Miscellaneous

**Significance:** N/A Mar 30, 2001

Identified By: NRC

Item Type: FIN Finding

### **EFFECTIVE CORRECTIVE ACTION PROGRAM.**

The team concluded that the licensee was generally effective at identifying problems and putting them into the corrective action program. There was strong management emphasis on plant staff to identify problems and, overall, a very responsive plant staff. Since 1997, there had been an average of 4200 condition reports written each year. With the large number of condition reports and associated corrective actions, a dated software platform for the corrective action program, and the press of routine and emergent work activities, there was indication of timeliness and quality problems with some aspects of the corrective action program.

Examples were identified by the inspectors, consistent with what the licensee had identified, of protracted resolution of problems with the freeze protection system and with discrepancies between the locked status of valves in the plant and the designation as locked in equipment checklists. Examples were also identified where corrective actions for some problems had been incorporated with the resolution of other related problems which were then incorporated with the resolution of yet other problems (that is, by closing corrective action documents to other documents and so on), creating the potential for dilution of the effectiveness of corrective actions for some of the original problems and for unintended extension of due dates for older items. Although there had been some expressed dissatisfaction with some aspects of the corrective action program, the inspectors identified no impediments to a safety conscious work environment.

Inspection Report# : [2001006\(pdf\)](#)

**Significance:** N/A Dec 31, 2000

Identified By: NRC

Item Type: FIN Finding

### **CROSS-CUTTING ISSUE FOR PROCEDURE INADEQUACIES.**

The inspectors determined that a negative performance trend had developed in several cornerstone areas with procedure inadequacy being the common element based on two examples identified during this reporting period and two previously identified examples of inadequate procedures. All four examples related to the licensee development, technical review, and approval of



procedures. While the risk of the individual examples was very low, the licensee had failed to ensure that procedures were correct prior to being approved for use. These findings collectively indicated a problem with the licensee's human performance in the area of procedure development, technical review, and approval.

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

**Significance: N/A** Sep 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE EMERGENCY OPERATING PROCEDURE FOR TERMINATING CONTAINMENT SPRAY.**

A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified during the review of Licensee Event Report 50-266/2000-005-00, "Termination Criteria for Containment Spray in Emergency Operating Procedure Non-Conservative with Safety Analysis Assumptions." This report described a discrepancy with an Emergency Operating Procedure which had the potential to allow operators to prematurely secure containment spray prior to reaching the analyzed draw down level of the refueling water storage tank. The corrective actions were being tracked in the licensee's corrective action program.

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

**Significance: N/A** May 05, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**NUMEROUS ERRORS IDENTIFIED IN CALCULATIONS.**

The inspectors identified errors in the majority of calculations reviewed. These errors, along with those discussed above, indicated that a human performance issue might exist, relating to the depth and adequacy of engineering reviews. The errors constitute a fourth example of a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control."

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

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