May 6, 2004

Mr. Gary D. Van Middlesworth
Site Vice-President
Point Beach Nuclear Plant
Nuclear Management Company, LLC
6610 Nuclear Road
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 05000266/2004002;
05000301/2004002

Dear Mr. Van Middlesworth:

On March 31, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on April 5, 2004, with you and members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, three NRC-identified findings of very low safety significance were identified, two of which involved a violation of NRC requirements. However, because the violations were of very low safety significance and because the issues were entered into the licensee's corrective action program, the NRC is treating these violations as Non-Cited Violations consistent with Section VI.A.1 of the NRC Enforcement Policy. Additionally, two licensee-identified violations are listed in Section 4OA7 of this report.

If you contest the subject or severity of a Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532 - 4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Point Beach Nuclear Plant facility.

In addition to the routine NRC inspection and assessment activities, Point Beach performance is being evaluated quarterly as described in the Annual Assessment Letter - Point Beach Nuclear Plant, dated March 4, 2004. Consistent with Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," plants in the multiple/repetitive degraded cornerstone column of the Action Matrix are given consideration at each quarterly performance assessment review for (1) declaring plant performance to be unacceptable in accordance with the guidance in IMC 0305; (2) transferring to the IMC 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems," process; and (3) taking additional regulatory actions, as appropriate. On January 15, February 24, and March 22, 2004, the NRC reviewed Point Beach operational performance, inspection findings, and performance indicators for the first quarter of 2004. Based on this review, we concluded that Point Beach performance, while not clearly demonstrating improvement, did not represent unsafe operations. We determined that no additional regulatory actions, beyond the already increased inspection activities and management oversight, are currently warranted.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and any response you submit will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Steven A. Reynolds, Acting Director
Division of Reactor Projects

Docket Nos. 50-266; 50-301
License Nos. DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2004002; 05000301/2004002
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-266; 50-301
License Nos:	DPR-24; DPR-27
Report No:	05000266/2004002; 05000301/2004002
Licensee:	Nuclear Management Company, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	6610 Nuclear Road Two Rivers, WI 54241
Dates:	December 28, 2003, through March 31, 2004
Inspectors:	P. Krohn, Senior Resident Inspector M. Morris, Acting Senior Resident Inspector R. Langstaff, Senior Reactor Inspector R. Alexander, Radiation Specialist D. Karjala, Resident Inspector B. Jorgensen, NRC Consultant M. Jordan, NRC Consultant
Approved by:	P. Louden, Chief Branch 7 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000266/2004002, 05000301/2004002; 12/28/2003 - 03/31/2004; Point Beach Nuclear Plant, Units 1 & 2; Fire Protection, Maintenance Risk Assessment and Emergent Work Evaluation.

This report covers a 3-month period of baseline resident inspection and announced radiation protection (71121) inspections for the Point Beach Nuclear Plant, Units 1 and 2, by seven inspectors: a senior reactor inspector, a radiation specialist inspector, two NRC consultant inspectors, and three resident inspectors. Two Non-Cited Violations (NCVs) and one Green finding were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified an NCV of the license for the failure of the licensee to install sprinkler heads in accordance with the applicable fire code in the component cooling water (CCW) pump area. Specifically, the sprinkler heads were located a greater distance below the ceiling than permitted by code.

  This finding was more than minor because it was associated with the protection against external factors (i.e., fire) attribute of the mitigating systems reactor safety cornerstone and affected the cornerstone objective in that a fire protection feature (i.e., an automatic suppression system) was adversely affected. The finding was of very low safety significance because manual fire fighting and auxiliary feedwater (AFW) could be credited. This issue is a violation of a license condition and the applicable fire code which requires that sprinkler heads be located near the ceiling. (Section 4OA5)

Cornerstone: Barrier Integrity

- Green. The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance (Green) for failing to properly document a modification of the containment hatch interlock. The licensee failed to perform an engineering design change analysis for the Unit 1 personal containment hatch upper interlock cable when it was identified that original design specifications were not met. Specifically, the cable was replaced with a smaller cable prior to 2000 and again in 2000. When the cable broke in 2004, engineers replaced the cable with one that met the original design specifications, correcting the violation.

  The inspectors determined that the finding was more than minor because it affected the barrier integrity reactor safety cornerstone objective attribute of maintaining functionality of containment design control. The finding was considered to be of very low safety

significance because it did not result in an actual open pathway in the physical integrity of the reactor containment or actual reduction of the atmospheric pressure control function of the reactor containment. (Section 1R23.2)

Cornerstone: Emergency Preparedness

- Green. The inspectors identified a finding of very low safety significance concerning an inadequate extent-of-condition review during safety-related procedure revisions associated with steam generator narrow range level setpoints, and the failure to recognize the impact of the setpoint changes on the Point Beach Emergency Plan. The primary cause of this finding was related to the cross-cutting area of human performance in four respects. First, at least four personnel, including a Shift Manager (SM) and two senior reactor operators (SROs), reviewed the procedure changes but failed to recognize the potential impact of the procedure changes on the emergency plan. Second, personnel associated with the corrective action process for the initial steam generator narrow range level density compensation issue failed to recognize the potential emergency plan impact and raise the issue to the attention of emergency preparedness personnel. Third, despite the emergency preparedness reviews completed prior to and during the 95003 supplemental inspection process, the licensee had not identified and evaluated the potential impacts of the discrepancy between the procedure setpoints and Emergency Action Level 3.1.1.4. Fourth, until identified by the inspectors, personnel involved with efforts to achieve regulatory compliance with eight emergency action levels (EALs) during January 2004, had not recognized or evaluated the potential impact of the discrepancy.

  This finding was considered more than minor because it: (1) involved the procedure quality attribute of the emergency preparedness reactor safety cornerstone; and (2) if left uncorrected, it could become a more significant safety concern if the discrepancy in steam generator narrow range level setpoints prevented, or caused a delay in, declaring a general emergency during a loss of electrical power event. The finding was not considered a violation of regulatory requirements. (Section 4OA2.2)

B. Licensee-Identified Violations

Violations of very low significance, which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at 100 percent power and remained there until February 21, 2004, when power was reduced to 65 percent for crossover steam dump and turbine stop valve testing. The unit returned to 98 percent power on February 22 and remained there until February 26 when it was returned to full power. The unit decreased power to 98 percent on March 4 for AFW pump testing and returned to full power on March 5. The unit remained at full power until March 20 when power coastdown began prior to the unit outage and ended this report period at 92 percent power.

Unit 2 began the inspection period at 100 percent power until February 7, when power was reduced to 65 percent for crossover steam dump and AFW pump testing. Unit 2 returned to full power on February 8. The unit decreased power to 98 percent on March 4 for AFW pump testing and returned to full power that day. The unit decreased power to 98 percent on March 11 for AFW pump testing and returned to full power that day. On March 30, after the licensee identified that nitrogen overpressure in a safety injection accumulator was less than the Technical Specification limit, reactor power was reduced to 82 percent before nitrogen was restored to the limit. Reactor power was returned to 100 percent that afternoon. The unit remained at full power until the end of this report period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns

b. Inspection Scope

The inspectors performed two partial walkdowns of accessible portions of risk-significant systems to evaluate the operability of the selected systems. The inspectors utilized valve and electrical breaker checklists (CLs), tank level books, plant drawings, and selected operating procedures to verify that the components were properly positioned and supported the systems as needed. The inspectors also examined the material condition of the components and observed operating equipment parameters to verify that there were no obvious deficiencies. The inspectors reviewed completed work orders (WOs) and calibration records associated with the systems to determine if those documents revealed issues that could affect component or train function. The inspectors used the information in the appropriate sections of the Final Safety Analysis Report (FSAR) to determine the functional requirements of the system. Documents reviewed during this inspection are listed in the attachment to this report. These observations constituted two quarterly inspection samples.

The inspectors verified the alignment of the following systems:

- Ice Melt System
- Unit 2 Safety Injection (SI) System

b. Findings

No findings of significance were identified.

.2 Complete System Walkdowns

c. Inspection Scope

On March 10, 2004, the inspectors performed a complete system alignment inspection of Unit 1 and Unit 2 service water (SW) system. This system was selected because it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspection consisted of the following activities:

- a review of plant procedures (including selected abnormal and emergency procedures), drawings, and the FSAR to identify proper system alignment;
- a review of outstanding or completed temporary and permanent modifications to the system;
- a review of open corrective action program documents (CAPs) and WOs that could impact operability of the system; and
- a walkdown of mechanical and electrical components in the system to verify proper alignment, component accessibility, availability, and current condition.

The inspectors also reviewed selected documented issues to determine if they had been properly addressed in the licensee's corrective action program. Documents reviewed during this inspection are listed in the attachment to this report. These inspection activities constituted one inspection sample.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Walkdown of Selected Fire Zones

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of fire fighting equipment, the control of transient combustibles and ignition sources, and on the condition and operating status of installed fire barriers. The inspectors selected 11 fire areas for inspection based on the area's overall fire risk contribution, as documented in the Individual Plant Examination of External Events, the area's potential to impact equipment which could initiate a plant transient, or the area's impact on the plant's ability to respond to a security event. The

inspectors used the documents listed in the attachment to this report to determine if fire hoses and extinguishers were in their designated locations and available for immediate use, fire detectors and sprinklers were unobstructed, transient material loading was within the analyzed limits, and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. These observations constituted 11 quarterly inspection samples.

The following areas were inspected by walkdowns:

- Fire Zone A31, Control Room;
- Fire Zone A24, 4160 Volts Vital Switchgear Room;
- Fire Zone A25, D06 Battery Room;
- Fire Zone A26, D05 Battery Room;
- Fire Zone A27, G-01 Diesel Generator Room;
- Fire Zone A28, G-02 Diesel Generator Room;
- Fire Zone A29, Air Compressor Room;
- Fire Zone A30, Cable Spreading Room;
- Fire Zone 311/A01-E, AFW Tunnel;
- Fire Zone A34, Technical Support Center; and
- Fire Zone 208/A01-D, Radwaste Solidification Area.

b. Findings

No findings of significance were identified.

.2 Annual Resident Inspector Observation of Unannounced Fire Drill

a. Inspection Scope

The inspectors observed an unannounced drill in the AFW pump room on March 10, 2004, to evaluate licensee personnel's readiness and response capabilities to fight fires at the facility. The inspectors observed licensee performance in donning protective clothing/turnout gear and self-contained breathing apparatus, deploying firefighting equipment and fire hoses to the scene of the fire, entering the fire area in a deliberate and controlled manner, maintaining communications, checking for victims and propagation of fire and smoke into other plant areas, and using pre-planned firefighting strategies to evaluate the effectiveness of the brigade. The inspectors also observed control room activities to evaluate the effectiveness of command and control, and radio communications. The inspectors observed the post-drill critique to evaluate the effectiveness and thoroughness of self-identification of problems. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one annual inspection sample.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures - External Floods (71111.06)

a. Inspection Scope

During the week of February 23, 2004, the inspectors completed one internal flood protection quarterly inspection sample. The inspectors evaluated flood protection features, such as flood doors, door gaps, and subsoil drains, to determine if the features were in satisfactory physical condition, unobstructed, and capable of providing an adequate flood barrier. The inspectors reviewed design basis documents and risk analyses to determine plant vulnerabilities and protective features relating to potential flooding from external water sources. Documents reviewed during this inspection are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On January 15, 2004, the inspectors observed the operating crew performance during simulator training. The inspectors also reviewed some of the changes to the simulator model against modifications made in the plant. This observation constituted one quarterly inspection sample.

The inspectors evaluated crew performance in the areas of:

- clarity and formality of communications;
- understanding of the interactions and function of the operating crew during an emergency;
- prioritization, interpretation, and verification of actions required for emergency procedure use and interpretation;
- oversight and direction from supervisors; and
- group dynamics.

Crew performance in these areas was compared to licensee management expectations and guidelines as presented in Procedure NP 2.1.1, “Conduct of Operations,” Revision 1.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors performed issue/problem-oriented reviews of the systems listed below, completing three maintenance effectiveness inspection samples. The inspectors reviewed repetitive maintenance activity to assess maintenance effectiveness, including maintenance rule activities, work practices, and common cause issues. Inspection activities included, but were not limited to, the licensee's categorization of specific issues, including evaluation of performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed implementation of the Maintenance Rule (10 CFR 50.65) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, functional failure determinations associated with reviewed condition reports, and current equipment performance status.

For each system reviewed, the inspectors reviewed significant WOs and CAPs to determine if failures were properly identified, classified, and corrected, and that unavailable time had been properly calculated. The inspectors reviewed documents listed in the attachment to determine if minor discrepancies in the licensee's maintenance rule reports were corrected.

Specific components and systems reviewed were:

- Residual Heat Removal (RHR) System
- Control Room Ventilation System
- Service Air System

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed risk assessments for the following maintenance activities, completing risk assessment and emergent work control inspection samples. These observations constituted six quarterly inspection samples.

- unavailability of the SI and RHR motors and valves for planned maintenance testing on week of January 4, 2004;
- unavailability of the 'A' SI pump discharge flow meter, and the reactor protection and safeguards analog rack steam generator level instrumentation for planned maintenance on week of January 18, 2004;
- unavailability of the G-02 emergency diesel generator (EDG) for planned maintenance on week of February 1, 2004;

- unavailability of the Unit 2 'B' CCW pump for planned maintenance on week of February 15, 2004;
- unrecognized entry into the next level of risk for planned maintenance due to a surveillance on B RHR Pump Discharge Pressure Transmitter, 1PT-629, during the week of February 29, 2004; and
- surveillance on B RHR Pump Discharge Pressure Transmitter, 1PT-629, during the week of March 7, 2004.

During these reviews, the inspectors compared the licensee's risk management actions to those actions specified in the licensee's procedures for the assessment and management of risk associated with maintenance activities. The inspectors determined if the evaluation, planning, control, and performance of the work were done in a manner to reduce the risk and minimize the duration, where practical, and if contingency plans were in place, where appropriate. The inspectors used the licensee's daily configuration risk assessment records, observations of shift turnover meetings, and observations of daily plant status meetings to determine if equipment configuration had been properly listed, protected equipment had been identified and was being controlled where appropriate, and significant aspects of plant risk were communicated to the necessary personnel. Documents reviewed during this inspection are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Plant Evolutions and Events (71111.14)

.1 Unexpected Control Rod Motion During Installation of a Source Range Nuclear Instrument (SRNI) Drawer

a. Inspection Scope

On January 28, 2004, the inspectors observed operator response to Unit 1 uncontrolled rod motion caused by an electrical short circuit during re-installation of the 1N-31 SRNI drawer. The inspectors reviewed the resulting Unit 1 plant transient which included automatic rod motion, loss of a safety-related inverter power supply, and loss of nine main control board indications. The inspectors interviewed selected personnel and reviewed control room operator action to stabilize plant conditions, perform Abnormal Operating Procedure AOP 6C, adhere to Technical Specification Action Condition (TSAC) entry and action requirements, maintain accurate log records, restore control board indications, and evaluate and control other ongoing engineering safeguards system maintenance. The inspectors also reviewed the ability of the licensee to identify electrical power in the SRNI cabinet and the use of past operating experience. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one inspection sample.

b. Findings

No findings of significance were identified.

.2 Response to a Medical Event

a. Inspection Scope

On March 23, 2004, the inspectors observed the licensee's response to a medical event involving a non-licensed operator assigned to a dedicated operator position. This observation constituted one inspection sample.

b. Findings

No findings of significance were identified.

.3 Power Reduction Due to an Out-of-Specification Unit 2 'A' SI Accumulator Level Indication

a. Inspection Scope

On March 30, 2004, the inspectors observed a power reduction that was conducted after SI Accumulator T-34A was determined to be inoperable because the water volume exceeded the maximum limit of 1136 cubic feet allowed by TS 3.5.1. The operability of the SI accumulator level instruments were in question due to one of the two indicators being within the normal range (LT-938) and the other, which had recently been replaced under a modification, being off-scale high (LT-939). During troubleshooting activities, an ultrasonic detector revealed that the level was above the high scale indication, and the accumulator was declared out-of-service, due to the liquid volume being greater than allowed by TS 3.5.1. Accumulator water level was lowered by draining, which resulted in a decrease of the nitrogen cover gas below the TS minimum. A power reduction in preparation for reactor shutdown was then commenced, in accordance with normal plant procedures, because the nitrogen pressure could not be restored to the minimum limit within the time allotted by the TS. When pressure was restored to the TS minimum, the power reduction was stopped at 82 percent. Inspectors then observed the power increase to full load. Troubleshooting indicated that LT-938 gave a false low reading because of water in the dry reference leg. The water was drained from the reference leg and LT-938 was returned to service. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one inspection sample. A potential licensee-identified violation associated with exceeding the TS 3.5.1 accumulator level limit will be dispositioned in the next NRC quarterly inspection report after review of the required 10 CFR 50.73 licensee event report. This report is due for submission to the NRC by the licensee in late May 2004.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. Inspection Scope

During this inspection period, the inspectors reviewed the following operability evaluations:

- Nitrogen Backup Supply to AFW Flow Control Valves;
- EAL 6.1.1, Natural Destructive Phenomena: Earthquake
- Symptomatic Vibration of G-01 EDG Bearing;
- Unit 1 & 2 Submerged SI Pump Power Supply Cables; and
- Submerged 4160-Volt Cables to Train 'B' SI Motors

These reviews constituted five quarterly inspection samples.

The inspectors reviewed the technical adequacy of the operability evaluations against TS, FSAR, and other design information; determined whether compensatory measures, if needed, were taken; and determined whether the evaluations were consistent with Procedure NP 5.3.7, "Operability Determinations." The inspectors also reviewed CAPs to determine if licensee personnel identified issues at an appropriate threshold and entered them into the corrective action program in accordance with station procedures. Documents reviewed during this inspection are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

.2 (Closed) Unresolved Item (URI) 05000266/2003009-06: This URI concerned the installation of a nonsafety-related metallic part (worm gear) in the 1AF-4000, "1P-29 AFW Pump Discharge to 'B' Steam Generator," motor-operated valve (MOV). This issue was previously discussed in Inspection Report 05000266/2003009; 05000301/2003009 (Section 15.2), and was identified by maintenance personnel during the last Unit 2 refueling outage. Initial material hardness testing indicated that the 1AF-4000 worm gear had about one-half of the material strength of the intended safety-related part. The inspectors reviewed the licensee's engineering evaluation and material and fatigue property analyses to evaluate the ability of 1AF-4000 to have performed the intended safety function. The inspectors' review of the licensee's evaluation and analyses constituted one inspection sample.

In reviewing the licensee's analyses, the inspectors considered the worm gear fatigue life, the number of strokes required of 1AF-4000 during the most limiting transients and design basis events, and whether a change in the failure rate had to be included in probabilistic risk assessment models. The inspectors reviewed vendor calculations concerning the worm gear fatigue life and determined that sufficient margin existed to ensure that the nonsafety-related worm gear would have been able to perform the intended safety-related function. Specifically, the inspectors evaluated and found acceptable licensee date that indicated the worm gear had a remaining fatigue life of

135 cycles, while the most limiting accident would have required 84 cycles. The inspectors also reviewed portions of NUREG/CR-6819, Volume 2, "Common-Cause Failure Event Insights - Motor Operated Valves," and determined that the installation of the nonsafety-related worm gear would not have significantly changed the probabilistic risk assessment worm failure rate. This licensee-identified issue is dispositioned in Section 4OA7.

1R16 Operator Workarounds (OWAs) (71111.16)

.1 Cumulative Effect of OWAs

a. Inspection Scope

Using the OWA list effective during the week of January 21, 2004, the inspectors evaluated the cumulative effect of these workarounds on plant operations. The inspectors evaluated outstanding OWAs to determine the overall complexity and aggregate effects on operator performance. The inspectors also reviewed selected control room WO deficiency tags and OWA meeting minutes to determine if the licensee had conducted periodic reviews and considered the total impact of outstanding WOs on risk and plant operations. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one inspection sample.

b. Findings

No findings of significance were identified.

.2 Selected OWAs

a. Inspection Scope

The inspectors reviewed OWAs with particular focus on the method by which instructions and contingency actions were communicated to and reviewed with on-shift licensed operators. Documents reviewed during this inspection are listed in the attachment to this report. These observations constituted five inspection samples.

The inspectors completed the samples by reviewing:

- CAP053486 relating to licensee's procedures that had potential OWAs for avoiding a steam generator blowdown water hammer,
- CAP054483 relating to licensee's procedures that had potential OWAs for having the boric acid blend totalizer in "Manual,"
- CAP054491 relating to licensee's procedures that had potential OWAs having to make manual data entry into the plant process computer,
- CAP033205 which described an unexpected 125 Volts Direct Current Bus under/over voltage alarm concurrent with the start of SW Pump P-32F despite a previous modification to install time delay relays to resolve an OWA, and
- CAP002262 related to gas binding of SI pumps that resulted in a corrective action to establish periodic venting, and modifications to provide high point vents to facilitate frequent venting.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

During the weeks of March 8 and 15, 2004, the inspectors conducted a review of a modification that replaced the level transmitter 2LT-939 for SI accumulator 2T-34A. The purpose of the modification was to increase reliability and decrease uncertainty in the indicated level of the accumulator. The inspection activities included observing the review of the modification by the Design Review Board and in-office review of the design change CL, the 10 CFR 59.59 screening, the design document CL, and the drawing change requests. These activities constituted one inspection sample. The documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (PMT) (71111.19)

.1 Safety-Related SW Isolation Valve Removed From Service Without Appropriate TS Action Condition Entry Being Made

a. Inspection Scope

On January 12, 2004, the licensee identified that the operating crew had not entered the required TSAC when a safety-related water treatment system supply valve, SW-2817, was removed from service for scheduled replacement of the MOV actuator. During the weeks of January 17 and February 9, 2004, the inspectors reviewed PMT for the replacement to determine if the testing was adequate for the scope of the work performed and the equipment remained capable of performing the intended function. The inspectors also reviewed the completed test data, WO documentation, and selected tagout series to ensure that applicable TSAC entries had been made and that data was complete, appropriately verified, and met the acceptance criteria requirements of the test procedure. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one quarterly inspection sample.

b. Findings

A licensee-identified violation associated with PMT of the valve is dispositioned in Section 4OA7.

.2 Selected PMT Reviews

a. Inspection Scope

During this inspection period, the inspectors completed five quarterly inspection samples, composed of the following PMT activities:

- Containment Spray Pump 1P-14B Discharge Isolation Valve 1SI-860D on January 9, 2004,
- 1A05 (4160) and 1A04 (4160) Bus Voltmeters on Main Control Board,
- 2G-07 Motor Generator Set Voltage Regulator Replacement on January 9, 2004,
- K-3B Service Air Compressor PMT Failure and Rework on February 3, 2004, and
- G-02, EDG Maintenance and PMT Failure and Rework on February 13, 2004.

Documents reviewed during this inspection are listed in the attachment to this report. During completion of the inspection samples, the inspectors observed in-plant activities and reviewed procedures and associated records to determine if:

- testing activities satisfied the test procedure acceptance criteria,
- effects of the testing had been adequately addressed prior to the commencement of the testing,
- measuring and test equipment calibration was current,
- test equipment was used within the required range and accuracy,
- applicable prerequisites described in the test procedures were satisfied,
- affected systems or components were removed from service in accordance with approved procedures,
- testing activities were performed in accordance with the test procedures and other applicable procedures,
- jumpers and lifted leads were controlled and restored, where used;
- test data/results were accurate, complete, and valid,
- test equipment was removed after testing,
- equipment was returned to a position or status required to support the operability of the system in accordance with approved procedures, and
- all problems identified during the testing were appropriately documented in the corrective action program.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

During this inspection period, the inspectors completed inspection samples, composed of the following surveillance testing activities:

- G-05 Gas Turbine Instrument Calibration on January 11, 2004,

- Unit 1 Reactor Protection and Safeguards Analog Racks Flux Mismatch 18 Month Calibration on January 16, 2004,
- G-01 EDG Slow Start Test on January 25, 2004,
- IT-08A, 1P-29 Turbine Driven AFW Pump Cold Start and Valve Test on March 5, 2004,
- G-02 EDG Repairs and the Testing and Return to Service on February 13, 2004,
- Containment Spray Pump and Valve Surveillance on January 9, 2004, and
- Unit 2 SI Accumulator T-34A Level Detector LT-939 return to service on March 18, 2004.

Documents reviewed during this inspection are listed in the attachment to this report. These observations constituted seven quarterly inspection samples.

During completion of the inspection samples, the inspectors observed in-plant activities and reviewed procedures and associated records to determine if:

- preconditioning occurred;
- effects of the testing had been adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, properly documented, as-left setpoints were within required ranges, and the calibration frequency was in accordance with TSs, FSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy;
- applicable prerequisites described in the test procedures were satisfied;
- test frequency met TS requirements to demonstrate operability and reliability;
- the tests were performed in accordance with the test procedures and other applicable procedures;
- jumpers and lifted leads were controlled and restored where used;
- test data/results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for in-service testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers Code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data have been accurately incorporated in the test procedure;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the corrective action program.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

.1 Temporary Modifications (TMods)

a. Inspection Scope

The inspectors conducted in-plant observations of physical changes to the plant and equipment, and performed in-office reviews of documentation to evaluate the TMods detailed below. The inspectors reviewed design basis documents and safety evaluation screenings to ensure that the modifications were consistent with applicable documents, drawings, and procedures. The inspectors also reviewed the post-installation results to determine if the impacts, if any, of the TMods on permanent and interfacing systems were adequately evaluated by the licensee. Documents reviewed during this inspection are listed in the attachment to this report. These observations constituted two inspection samples.

The inspectors reviewed the following TMods:

- TMod Number 03-035; U1 - Facade Cable Tray Heating Tent. This TMod provided winter heating to the southwest corner of the Unit 1 facade.
- Unit 2 Pressurizer Level Transient on February 4, 2004; Installation of Trend Recorder.

b. Findings

No findings of significance were identified.

.2 Unit 1 Containment Hatch Interlock Cable Engineering Design Change Not Per Procedure

a. Inspection Scope

During the week of March 22, 2004, the inspectors reviewed the circumstances associated with the replacement of the Unit 1 containment hatch interlock push-pull cable. The inspectors reviewed the existing plant configuration at the time of the event as well as the human performance, communications, procedure use and adherence, and the replacement of the cable in June 2000 to determine if the engineering design change process had been conducted in accordance with the licensee's policies, procedures, and expectations. Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one inspection sample.

b. Findings

Introduction: The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance (Green), for failing to

properly document a modification of the containment interlock. The cable subsequently parted on March 15, 2004, when the containment hatch was needed to be opened for a routine entry. This issue was considered to be NRC-identified because the licensee failed to identify that the design change had not been properly documented without the inspectors' questions.

Description: During a routine Unit 1 containment entry, the outer containment hatch did not operate correctly. The shift manager (SM) declared the containment hatch inoperable and entered TS 3.6.2.B, "Containment Air Locks." The licensee investigated the containment hatch operating mechanism and discovered that the containment door interlock push-pull cable had parted. A WO was written to replace the cable. The licensee discovered that the installed cable was not the same as the cable identified in the drawings. The licensee reviewed the WO that had been used to install the cable in June 2000 and determined that the documentation was sufficient for the modification, based on procedure revisions in effect at the time of the installation. In CAP054869, "Wrong Push Pull Cable on Containment Outer Door Personal Airlock", it states "This was due to the result of an unauthorized mod (by today's definitions)...". When questioned by the inspectors, the licensee indicated that the TMods procedure, NP (Nuclear Plant Procedures Manual) 7.3.1, did allow modifications to nonsafety-related procedures, during the time that the modification was made.

The inspectors identified that although Procedure NP 7.3.1, "TMods," did allow modifications of some plant components using WOs, they were listed by CHAMPS ID systems. The component that was replaced did not meet the exception requirements and was therefore not installed in accordance with revisions of the plant engineering design change NP 7.2.6, Revision 1, "Engineering Change Process," or NP 7.3.1, Revision 11, "TMods," that were in effect at the time of the modification.

Analysis: The inspectors determined that performing a plant modification without proper engineering design change controls was a performance deficiency warranting a significance evaluation in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Disposition Screening," issued on June 20, 2003. The inspectors determined that the finding was more than minor because it affected the barrier integrity reactor safety cornerstone objective attribute of maintaining functionality of containment design control.

The inspectors completed a significance determination of this issue using IMC 0609, SDP, dated March 21, 2003, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," dated March 18, 2002. The inspectors determined that the finding did not result in an actual open pathway in the physical integrity of the reactor containment, or actual reduction of the atmospheric pressure control function of the reactor containment. Therefore, the finding was considered to be of very low safety significance (Green).

Enforcement: Appendix B, 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that design changes, including field changes, be subject to design control measures commensurate with those applied to the original design and be approved by the organization that performed the original design. Contrary to the above, on June 30, 2000, the Unit 1 containment interlock push-pull cable in the upper hatch

was replaced without performing the required design modification in accordance with established plant procedures.

This violation was entered into the licensee's corrective action program as CAP054869, "Wrong Push Pull Cable on Containment Outer Door Personal Airlock." Because this violation was of very low safety significance and it was entered into the licensee's corrective action program, this violation is being treated as an NCV consistent with Section VI.A. of the NRC Enforcement Policy. (NCV 05000301/2004002-01)

Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

.1 Emergency Plan Procedure Training Drills

a. Inspection Scope

During the weeks of February 12 and 26, 2004, the inspectors observed the training drills involving the revised EALs and Emergency Plan Implementing Procedures (EPIPs). The inspectors observed classifications, notifications, facility activations, and facility critiques. The observations were in the Control Room (simulator), Technical Support Center, and Emergency Operations Facility. The inspectors also observed the training of new Emergency Response Organization personnel. These observations constituted two inspection samples.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiation Work Permit (RWP) Reviews

a. Inspection Scope

The inspectors reviewed licensee controls and surveys for a variety of radiologically significant work areas within radiation areas and high radiation areas (HRAs) in the plant, and reviewed work packages, which included associated licensee controls and surveys of these areas, to determine if radiological controls, including surveys, postings and barricades, were acceptable. In particular, the radiological controls for significant work areas on selected elevations of the auxiliary building and in the radwaste truckbay were evaluated.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.2 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed seven corrective action reports related to access controls and HRA radiological incidents. Staff members were interviewed and corrective action documents were reviewed to determine if follow-up activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk based on the following:

- Initial problem identification, characterization, and tracking;
- Disposition of operability/reportability issues;
- Evaluation of safety significance/risk and priority for resolution;
- Identification of repetitive problems;
- Identification of contributing causes;
- Identification and implementation of effective corrective actions;
- Resolution of NCVs tracked in the corrective action system; and
- Implementation/consideration of risk significant operational experience feedback.

The inspectors reviewed licensee documentation packages for all events related to the radiation safety performance indicator (PI) occurring since the last inspection to determine if any of these PI events involved dose rates >25 Roentgens/hour (R/hr) at 30 centimeters or >500 R/hr at 1 meter. If such PI events were identified, event documentation was evaluated to assess what barriers failed and to determine if there were any barriers left to prevent personnel access. Also, if PI events were identified, unintended exposures of >100 millirem total effective dose equivalent (or >5 rem shallow dose equivalent or >1.5 rem lens dose equivalent), were evaluated to determine if there were any regulatory overexposures or if there was a substantial potential for an overexposure.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented two inspection samples.

b. Findings

No findings of significance were identified.

.3 Job-In-Progress Reviews

a. Inspection Scope

The inspectors observed the following job that was being performed in radiologically significant areas for observation of work activities that presented the greatest radiological risk to workers:

- Lift and Loading of a Radioactive Waste Liner from the Decon Pit to the Shipping Cask on the Flatbed Trailer in the Truck Bay

The inspectors reviewed radiological job requirements for this activity, including RWP requirements and work procedure requirements, and attended As-Low-As-Is-Reasonably-Achievable (ALARA) job briefings.

Job performance was observed with respect to these requirements to determine if radiological conditions in the work area were adequately communicated to workers through pre-job briefings and postings. The inspectors also reviewed the adequacy of radiological controls, including required radiation and contamination surveys, radiation protection job coverage, and contamination controls.

b. Findings

No findings of significance were identified.

.4 Radiation Worker Performance and Radiation Protection Technician Proficiency

a. Inspection Scope

The inspectors reviewed a variety of radiological problem reports, during or since the previous refueling outage, which found that the cause of the event was due to radiation worker errors or radiation protection technician errors, to determine if there was an observable pattern traceable to a similar cause, and to determine if this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. These problems, along with planned and taken corrective actions, were discussed with the Radiation Protection Manager.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented two inspection samples.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed procedures associated with maintaining occupational exposures ALARA and processes used to estimate and track work activity specific exposures to determine if the procedures and processes incorporated appropriate dose minimization practices and considerations.

These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.2 Radiological Work Planning

a. Inspection Scope

The inspectors evaluated the licensee's list of work activities ranked by estimated and actual exposure that were conducted during the fall 2003 Unit 2 refueling outage, (U2R26) and reviewed these work activities of highest exposure significance:

- Reactor Head Nozzle Ultrasonic Testing Activities (RWP No. 03-249), and
- Reactor Vessel Bottom Mounted Instrumentation Inspection (RWP No. 03-277).

For these activities, the inspectors reviewed the ALARA work activity evaluations, exposure estimates, and exposure mitigation requirements to determine if the licensee had established procedures and engineering and work controls that were based on sound radiation protection principles in order to achieve occupational exposures that were ALARA. This also involved determining if the licensee had reasonably grouped the radiological work into work activities, based on historical precedence, industry norms, and/or special circumstances.

The inspectors compared the results achieved including dose rate reductions and person-rem used with the intended dose established in the licensee's ALARA planning for these work activities. Reasons for inconsistencies between intended and actual work activity doses were reviewed. Additionally, the licensee's post-job (work activity) reviews were evaluated to determine if identified problems were entered into the licensee's corrective action program.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented three inspection samples.

b. Findings

No findings of significance were identified.

.3 Verification of Dose Estimates and Exposure Tracking Systems

a. Inspection Scope

The inspectors reviewed the assumptions and bases for the current 2004 annual collective exposure estimates, in order to evaluate the licensee's methodology for estimating work activity-specific exposures and the intended dose outcome. Dose rate and person-hour estimates were evaluated for reasonable accuracy.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.4 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed the corrective action program database to determine if identified problems with ALARA planning and controls were entered into the program for resolution and if they had been properly characterized, prioritized, and resolved. This included dose significant post-job (work activity) reviews for U2R26 and post-outage ALARA report critiques of exposure performance.

Documents reviewed during this inspection are listed in the attachment to this report. These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 PI Verification (71151)

Cornerstones: Initiating Events, Mitigating Systems, and Occupational Radiation Safety

.1 Reactor Safety Strategic Area - Initiating Events and Mitigating Systems Cornerstones

a. Inspection Scope

The inspectors reviewed the licensee's recent PI submittal. The inspectors used PI definitions and guidance contained in Revision 2 of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," to determine the accuracy of the PI data. The inspectors reviewed selected applicable

conditions and data from logs, licensee event reports, and corrective action program documents from January 2002 through January 2004. The inspectors independently re-performed calculations where applicable. The inspectors compared that information to the information required for each PI definition in the guideline to ensure that the licensee reported the data accurately.

These observations constituted four inspection samples. The following PIs were reviewed:

Unit 1

- High Pressure SI System, Safety Systems Unavailability
- Unplanned Transients per 7000 Critical Hours

Unit 2

- High Pressure SI System, Safety Systems Unavailability
- Unplanned Transients per 7000 Critical Hours

b. Findings

No findings of significance were identified.

.2 Radiation Safety Strategic Area - Occupational Radiation Safety Cornerstone

a. Inspection Scope

The inspectors sampled licensee submittals for the PIs listed below for the period of January 2003 to December 2003. To determine the accuracy of the PI data reported during that period, the inspectors used PI definitions and guidance contained in Revision 2 of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

Documents reviewed during this inspection are listed in the attachment to this report. This observation constituted one inspection sample. The following PI was reviewed:

Dual Unit

- Occupational Exposure Control Effectiveness

  The inspectors previously reviewed the one very high radiation area occurrence under this PI which occurred in October 2003 (see Inspection Report 05000266/2003009; 05000301/2003009, Section 2OS1.4). Since no additional reportable events were identified by the licensee for the 1st quarter through the 4th quarter of 2003, the inspectors compared the licensee's data with the CAP database and the radiological controlled area exit electronic dosimetry transaction records for these time periods, to determine if there were no unaccounted for occurrences in the Occupational Radiation Safety PI. Additionally, the inspectors conducted

walkdowns of accessible locked HRA and very high radiation area entrances to determine the adequacy of controls in place for these areas.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Untimely Response to Correct EALs and Achieve Regulatory Compliance

a. Inspection Scope

During the week of August 12, 2003, the NRC inspection procedure 95003 emergency preparedness/emergency planning team identified that eight Emergency Plan EALs had been changed that decreased the effectiveness of the Emergency Plan without prior NRC approval. The inspectors reviewed the timeliness of the licensee's corrective actions to achieve regulatory compliance.

b. Issues

This issue was documented by the licensee as CAP034784, "NRC 95-003-1 Inspection Team Questions on EALs," on August 12, 2003. The CAP was erroneously categorized at the CAP screening meeting as a level "C" problem and was considered a legacy issue, an old issue for which corrective actions were already in-place. Because of this miscategorization and internal miscommunications, the licensee did not identify the need for a root cause evaluation (RCE) and implementation of corrective actions until early January 2004. The RCE was subsequently completed on January 12, 2004, one day before the pre-decisional enforcement conference to discuss the issue.

At the conference on January 13, the licensee discussed the RCE (RCE000241, "Change of EAL Scheme Resulted in Apparent Violation"); however, the actions taken as of that time were inadequate to correct the violation. After the pre-decisional enforcement conference, discussions were held between the NRC and the licensee regarding a schedule for revising the EALs and achieving compliance. Appropriate procedure revisions were implemented late on January 16.

.2 Steam Generator Narrow Range (SGNR) Level Setpoints Revised in Safety-Related Procedures But Not In Emergency Plan General Emergency EAL 3.1.1.4

a. Inspection Scope

During the weeks of January 18 and February 29, 2004, the inspectors reviewed the adequacy and thoroughness of corrective actions associated with a previously identified NRC issue concerning the failure to account for the impact of varying water density differences on the SGNR level detector variable leg, when transitioning from hot to cold plant conditions. Specifically, the inspectors evaluated the ability of the licensee to perform adequate extent-of-condition reviews and recognize the impact of safety-related

procedure changes on the Point Beach Emergency Plan. This observation constituted one inspection sample.

b. Findings

Introduction: A Green finding was identified concerning an inadequate extent-of-condition review during safety-related procedure revisions associated with SGNR level setpoints, and the failure to recognize the impact of the setpoint changes on the Point Beach Emergency Plan. The finding was not considered a violation of regulatory requirement.

Description: This SGNR level setpoint issue had previously been determined to be of very low risk significance (Green) and was dispositioned as an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," in Inspection Report 05000266/2002010; 05000301/2002010, Section 1R20.1. In addition, Inspection Report 05000266/2002006; 05000301/2002006, Section 4OA2.1, discussed the observation that the licensee's initial extent of-condition review had identified that only the control room daily log sheet required revisions. The inspectors subsequently reviewed the rigor of the review and identified that the SGNR setpoints used in safety-related shutdown emergency procedure (SEP) 3.0, "Loss of All AC [Alternating Current] Power to a Shutdown Unit - Unit 1," Revision 12, and SEP 3.0, "Loss of All AC Power to a Shutdown Unit - Unit 2," Revision 13, created the possibility of uncovering the secondary side of the top of the steam generator U-tubes, thereby impacting the ability to remove reactor decay heat. Following the inspectors' observation, the licensee re-performed the extent-of-condition review and identified 12 other safety-related procedures requiring revisions. The inspectors concluded that the licensee's initial extent of condition review concerning the density compensation issue had not been sufficiently rigorous to identify the full impact of the issue on plant operations, and that the apparent cause had been associated with a failure in the internal communication process.

In monitoring the licensee's corrective actions to achieve regulatory compliance with the eight EALs discussed in the previous section of this report, the inspectors identified that the SGNR setpoints associated with SEP 3.0 differed from those of General Emergency EAL 3.1.1.4. Specifically, SEP 3.0, Step 5b., required that if at least one steam generator was not capable of being filled to 38 percent for normal containment conditions or 59 percent for adverse containment conditions, then the operators were required to implement the Emergency Plan. General Emergency EAL 3.1.1.4 and the corresponding EPIP, however, used corresponding setpoints of 29 and 51 percent. The inspectors reviewed the SEP 3.0 background document and EPIP 1.2 for EAL 3.1.1.4 and noted that the intent of both documents was to recognize the loss of the reactor heat sink.

The inspectors reviewed the temporary procedure change and 10 CFR 50.59 safety evaluation screening that changed the safety-related procedure setpoints to 38 and 59 percent. The inspectors determined that despite at least four personnel, including a SM and two SROs, having reviewed the procedure change and 10 CFR 50.59 screening, no one recognized the impact of the procedure changes on the Emergency Plan. In addition, the inspectors could not find any record that the operations department or

corrective action program personnel had recognized the potential impact of the SGNR issue on the Emergency Plan and raised the issue to the attention of emergency preparedness personnel.

The inspectors reviewed the current temporary procedure change and 10 CFR 50.59 screening controls and noted that the present process included consideration and review of the potential impact of procedure changes on the Emergency Plan. Also, the inspectors noted that despite the emergency preparedness reviews completed prior to and during the 95003 supplemental inspection process, the licensee had not identified and evaluated the potential impacts of the discrepancy between the SGNR safety-related procedure setpoints and EAL 3.1.1.4.

Analysis: The inspectors determined that the failure to recognize and evaluate the potential impacts of revising safety-related procedure SGNR level setpoints on the Point Beach Emergency Plan was a performance deficiency warranting a significance evaluation in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Disposition Screening," issued on June 20, 2003. This finding was considered more than minor because it: (1) involved the procedure quality attribute of the Reactor Safety/Emergency Preparedness cornerstone; and (2) if left uncorrected, it could become a more significant safety concern if the discrepancy in SGNR setpoints prevented, or caused a delay in, declaring a general emergency during a loss of electrical power event.

Also, the inspectors determined that not recognizing and evaluating the potential impacts of revising safety-related procedure SGNR level setpoints on the Point Beach Emergency Plan affected the cross-cutting area of human performance in four respects. First, at least four personnel, including a SM and two SROs, reviewed the SEP 3.0 procedure change and 10 CFR 50.59 screening but failed to recognize the potential impact of the procedure changes on the Emergency Plan. Second, personnel associated with the corrective action process for the NCV discussed in Inspection Report 05000266/2002010; 05000301/2002010 failed to recognize the potential impact of the SGNR issue on the Emergency Plan and raise the issue to the attention of emergency preparedness personnel. Third, despite the emergency preparedness reviews completed prior to and during the 95003 supplemental inspection process, the licensee had not identified and evaluated the potential impacts of the discrepancy between the SGNR SEP setpoints and EAL 3.1.1.4. Fourth, until identified by the inspectors, personnel involved with efforts to achieve regulatory compliance with eight EALs during January 2004, had not recognized or evaluated the potential impact of the discrepancy. Finally, the inspectors noted that the apparent cause of the original SGNR level setpoint issue, a failure in the internal communication process, was also a contributing cause to this issue in that successful communications between operations, corrective action program, and emergency preparedness personnel would have promoted licensee self-identification of the setpoint discrepancy.

The inspectors completed a significance determination of the issue using IMC 0609, SDP, Appendix B, "Emergency Preparedness Significance Determination Process," dated March 6, 2003. The inspectors determined that the Finding was considered to be of very low safety significance (Green), since it did not result in the failure to comply with a planning or risk significant planning standard.

Enforcement: Point Beach maintains an emergency preparedness program in accordance with NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," guidance which does not require shutdown EALs. In addition, the inspectors determined that the discrepancy between the safety-related SEP and the EAL 3.1.1.4. SGNR level setpoints would account for less than 8 inches of actual height difference at the top of the steam generator U-tubes, a difference that would result in a minimal delay in transitioning between SEP 3.0 and declaring a General Emergency in accordance with EAL 3.1.1.4. Because (1) Point Beach was not licensed to an emergency preparedness scheme requiring shutdown EALs; (2) the discrepancy between the SGNR setpoints would not have appreciably impacted steam generator heat removal capabilities; and (3) the health and safety of the public would not have been impacted; no violation of regulatory requirements occurred. This issue was considered a finding of very low safety significance (FIN 05000266/2004002-02; 05000301/2004002-02). The licensee entered the finding into its corrective action program as CAP052916, "EAL Setpoint in Question," dated January 16, 2004.

4OA4 Cross-Cutting Aspects of Findings

A finding discussed in Section 4OA2.2 of this report had, as its primary cause, a human performance deficiency in four respects. First, at least four personnel, including a SM and two SROs, reviewed the procedure changes but failed to recognize the potential impact of the procedure changes on the Emergency Plan. Second, personnel associated with the corrective action process for the initial steam generator narrow range level density compensation issue failed to recognize the potential emergency plan impact and raise the issue to the attention of emergency preparedness personnel. Third, despite the emergency preparedness reviews completed, prior to and during the 95003 supplemental inspection process, the licensee had not identified and evaluated the potential impacts of the discrepancy between the procedure setpoints and Emergency Action Level 3.1.1.4. Fourth, until identified by the inspectors, personnel involved with efforts to achieve regulatory compliance with the eight EALs, during January 2004, had not recognized or evaluated the potential impact of the discrepancy.

4OA5 Other Activities

(Closed) Unresolved Item URI 05000266/2003009-03; 05000301/2003009-03: Sprinkler head locations not in accordance with fire code. The inspectors identified that the licensee had failed to install sprinklers in accordance with the applicable fire code in the CCW pump area of the auxiliary building, in that the sprinkler heads were located a greater distance below the ceiling than permitted by code (see Section 1R05.b.2 of Inspection Report 05000266/2003009; 05000301/2003009 for details).

Analysis: In accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," the inspectors determined that the issue was more than minor because the finding was associated with the protection against external factors (i.e., fire) attribute of the Mitigating Systems reactor safety cornerstone and affected the Mitigating Systems objective in that a fire protection feature (i.e., an automatic suppression system) was adversely affected. In accordance with IMC 0609, Appendix A, the inspectors performed a SDP Phase 1 screening and determined that

the finding degraded the Fire Protection portion of the Mitigation Systems Cornerstone. As such, screening under IMC 0609, Appendix F, was required. Based on review of IMC 0609, Appendix F, the inspectors determined that the finding required a Phase 2 evaluation, since a fire protection feature was affected. The nonconforming location of the sprinkler heads would result in delay in activation of the sprinkler system because it would take a deeper (i. e., increased distance from the ceiling) hot gas layer to activate individual sprinkler heads. As such, the inspectors considered the sprinkler system in the CCW pump area to be moderately degraded. The licensee presented the ignition frequencies in the fire zone as 3.9×10^{-4} for pumps, 8.3×10^{-5} for electrical cabinets, 1.86×10^{-5} for transient combustibles, 4.18×10^{-4} for unqualified cables, and 7.1×10^{-5} for a ventilation system. The inspectors determined that credit for manual fire fighting, the availability of a turbine-driven AFW pump, and a motor-driven AFW pump (through a proceduralized manual action) was appropriate. As such, the inspectors concluded that the issue was of very low safety significance (Green).

Enforcement: License condition 3.H requires, in part, that the licensee implement and maintain in effect all provisions of the approved fire protection program as described in the FSAR for the facility. Section 9.10.1 of the FSAR states, in part, that the fire protection program is outlined in the Fire Protection Evaluation Report (FPER). Section 6.3.1 of the FPER stated, in part, that NFPA (National Fire Protection Association) 13 provided dimensional guidance and criteria necessary for installation or evaluation of an existing water suppression system. Section 6.3.3 of the FPER stated, in part, that fixed water extinguishing systems were designed and installed in accordance with applicable portions of NFPA 13.

Section 4-3.1.1 of NFPA 13-1978, specified that deflectors of sprinklers in bays shall be located 1 inch to 12 inches below noncombustible smooth ceilings. Contrary to the above, as of October 16, 2003, the inspectors identified 6 ceiling level sprinkler heads in the CCW pump area which were located in excess of 12 inches below the ceiling. The licensee's failure to install a sprinkler system in accordance with NFPA 13, as described above, is a violation of license condition 3.H. This violation is associated with a finding that is characterized by the SDP as having very low risk significance (Green) and is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. This issue was entered as CAP051175. (NCV 05000266/2004002-03; 05000301/2004002-03)

4OA6 Meetings

.1 Exit Meeting

On April 5, 2004, the resident inspectors presented the inspection results to Mr. G. Van Middlesworth and members of his staff, who acknowledged the findings. The licensee did not identify any information, provided to or reviewed by the inspectors, as proprietary in nature.

.2 Interim Exit Meeting

- Occupational Radiation Safety ALARA and access control programs inspection with Mr. F. Cayia on January 30, 2004. A follow-up interim exit meeting relative

to aspects of the ALARA and access control programs inspection was held telephonically with Mr. J. McCarthy on February 6, 2004.

4OA7 Licensee-Identified Violations

The following violations of very low significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600, for being dispositioned as NCVs.

Cornerstone: Mitigating Systems

- Criterion V, "Instructions, Procedures, and Drawings," of Appendix B of 10 CFR Part 50, requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Safety-related routine maintenance procedure RMP 9376-6, "Limitorque Motor Operator Model SMB-00 Disassembly, Inspection, Repair, and Re-assembly," Revisions 2 and 4, Step 3.3, required all safety-related motor operators to use qualified replacement parts and materials. Contrary to the above, between April 28, 2001, and November 1, 2003, the requirements of RMP 9376-6, Step 3.3, were not met in that an unqualified, nonsafety-related worm was installed in the 1AF-4000, "1P-29 AFW Pump Discharge to 'B' Steam Generator," MOV. The licensee entered the issue as CAP051530, "Non QA [Quality Assurance] Worm and Worm Gear used in QA Application for Limitorque Operator SMB-00."

- Criterion V, "Instructions, Procedures, and Drawings," of Appendix B of 10 CFR Part 50, requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Safety-related procedure RMP 9376-1, "Limitorque MOV [Motor-Operated Valve] Removal/Installation/Swap and Testing for Gate and Globe Valves," Step 4.3, directed that if a TSAC was required, then the appropriate entry be made. Contrary to the above, on January 12, 2004, maintenance on water treatment system supply valve, SW-2817, was not accomplished in accordance with procedure RMP 9376-1, Step 4.3, in that several licensed operators, WCC personnel, and the STA failed to recognize that entry into TSAC 3.7.8.D was required when removing the valve from service. The licensee entered the condition as CAP052765, "Tag Series 0 SW SW-2817 Tech Spec Ops Rev 0-1 Not Hung As Required."

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

G. Van Middlesworth, Site Vice-President
J. McCarthy, Site Director of Operations
J. Shaw, Plant Manager
J. Connolly, Regulatory Affairs Manager
J. Brander, Maintenance Manager
G. Casadonte, Fire Protection Coordinator
J. Schweitzer, Site Engineering Director
R. Milner, Business Planning Manager
M. Holzmann, Nuclear Oversight Manager
G. Sherwood, Engineering Programs Manager
R. Hopkins, Internal Assessment Supervisor
C. Jilek, Maintenance Rule Coordinator
T. Kendall, Program Engineering
B. Kopetsky, Security Coordinator
C. Krause, Senior Regulatory Compliance Engineer
R. Ladd, Fire Protection Engineer
B. Dungan, Operations Manager
K. Locke, Regulatory Compliance
M. Ray, Emergency Planning Manager
T. Petrowsky, Design Engineer Manager
C. Sizemore, Training Manager
D. Schoon, Production Planning Manager
M. Schug, Assistant Operations Manager
P. Smith, Operations Training Supervisor
J. Strharsky, Planning and Scheduling Manager
P. Russell, Site Assessment Manager
S. Thomas, Radiation Protection Manager

Nuclear Regulatory Commission

H. Chernoff, Point Beach Project Manager, NRR
P. Louden, Chief, Reactor Projects, Branch 7

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000301/2004002-01	NCV	Containment Upper Hatch Interlock (Section 1R23)
05000266/2004002-02; 05000301/2004002-02	FIN	Steam Generator Narrow Range Level Setpoints Revised in Safety-Related Procedures But Not In Emergency Plan General Emergency EAL 3.1.1.4 (Section 4OA2)
05000266/2004002-03; 05000301/2004002-03	NCV	Sprinkler Head Locations Not in Accordance with Fire Code (Section 4OA5)

Closed

05000266/2003009-06	URI	Nonsafety-Related Worm and Worm Gears Used in Safety-Related Motor Operated Valve Actuators (Section 1R15)
05000301/2004002-01	NCV	Containment Upper Hatch Interlock (Section 1R23)
05000266/2004002-02; 05000301/2004002-02	FIN	Steam Generator Narrow Range Level Setpoints Revised in Safety-Related Procedures But Not In Emergency Plan General Emergency EAL 3.1.1.4 (Section 4OA2)
05000266/2004002-03; 05000301/2004002-03	NCV	Sprinkler Head Locations Not in Accordance with Fire Code (Section 4OA5)
05000266/2003009-03; 05000301/2003009-03	URI	Sprinkler Head Locations Not in Accordance with Fire Code (Section 4OA5)

Discussed

None.

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

BECH6118, M-212 Sheet 1; Circulating Water System; Unit 1, Revision 60

BECH6118, M-212 Sheet 2; Circulating Water Screen Wash System; Unit 1, Revision 18

CAP053264; North Inlet 2 Temperature RTD [Resistance Temperature Detector] Erratic Operation; dated January 27, 2004

FSAR Section 9.6; Service Water System; dated June 2002

DBD-12; Service Water System Design Basis Document; Revision 1

0-TS-SW-001; Service Water Flow Path Valve Position Verification (Monthly); Revision 0

CL 10B; Service Water Safeguards Lineup; Revision 54

CL 10C; Service Water Turbine Building Valve Lineup Unit 1; Revision 21

CL 10C; Service Water Turbine Building Valve Lineup Unit 2; Revision 17

CAP053816; FI-04459B North Header Service Water Flow Instrument Out of Specification; dated February 13, 2004

CAP053981; Foreign Material Found in 0SW-02913-BS; dated February 18, 2004

CAP054427; 1B52-10C, P-32C SW Pump Supply Breaker Discovered to Have Loose Parts; dated March 3, 2004

CAP054622; Scope Expansion of Augmented Service Water Inspection of AFW Piping; dated March 9, 2004

CAP054637; Unusual Noise From P-32A Service Water Pump Noted During AO [Auxiliary Operator] Rounds; dated March 10, 2004

CAP054781; Valves SW-800A and SW-800B Found Open, Should Be Shut; dated March 14, 2004

CAP055053; SW-02911-BS North SW Header Main Zurn Strainer Inspection Results; dated March 23, 2004

1R05 Fire Protection

Fire Hazard Analysis Report Fire Area A31; Control Room; January 2003

CAP054183; Emergency Light EL-088 Not Listed in Fire Hazards Analysis Report; dated February 25, 2004 (NRC-identified issue)

Fire Hazards Analysis Report, Revision 1

Point Beach Nuclear Plant - Fire Area Analysis Summary Report, January 2003

CAP054665; Radios Not Working Properly in Aux. Feed Pump Room Area; dated March 10, 2004

1R06 Flood Protection Measures

NP 8.4.17; Point Beach Nuclear Plant Flooding Barrier Control; Revision 2

PBNP Topical Design Basis Document, DBD-T-41, Revision 0; Hazards - Internal and External Flooding

Corrective Action CA031053; DOCKETED EXCELLENCE PLAN - Manhole/Cable Vault Flooding: Complete Mod Installation

CAP001548; North Circulating Water Pump House manhole does not have a means to be pumped

CA002713; North Circulating Water Pump House manhole does not have a means to be pumped

Condition Evaluation CE011173; Continued Water Intrusion into Manholes

AOP-13C; Severe Weather Conditions, Revision 14

1R11 Licensed Operator Qualifications

Operations Manual OM 3.7; AOP and EOP [Emergency Operating Procedure] Procedure Sets Use and Adherence; Revision 12, dated June 5, 2003

1R12 Maintenance Effectiveness

Maintenance Rule Emergency Core Cooling System Summary, dated January 2002 through January 2004

Function List for RHR Sorted for Maintenance Rule; dated January 14, 2004

Work Orders for RHR Initiated Between January 1, 2002, and January 1, 2004; dated January 14, 2004

DBD-10; RHR System Design Basis; Revision 1, dated September 28, 2001

Maintenance Rule Control Room HVAC [Heating, Ventilation, and Air Conditioning] Summary, dated January 2002 through January 2004

Function List for Control Room HVAC for Maintenance Rule; dated January 6, 2004

Work Orders for RHR Initiated Between January 1, 2002 and January 1, 2004; dated January 6, 2004

DBD-31; Control Room HVAC Design Basis; Revision 0, dated July 5, 1995

FSAR Chapter 9.8; Control Room Ventilation System; dated June 2002

FSAR Chapter 9.2; Residual Heat Removal System; dated June 2001

FSAR Chapter 9.8; Safety Injection System; dated June 2003

CAP052783; Improvements to VNCR [Control Room Ventilation System] Maintenance Rule Unavailability Records Required, dated January 13, 2004 (NRC-identified issue)

CAP053505; VNCR Maintenance Rule Unavailability Time 97 percent Allowable; dated February 3, 2004

Modification MR-97-049*D ECR-2001-0245; Upgrade Control Room Envelope Boundary; Revision 1, dated November 19, 2001

Modification MR-97-049*E; Control Room Outdoor Air Duct Isolation Damper Upgrades

CAP055163; Potential Maintenance Rule Procedure Weakness; dated March 27, 2004 (NRC-Identified issue)

NP 7.7.5; Determining, Monitoring and Evaluating Performance Criteria for the Maintenance Rule; Revision 11; dated November 5, 2003

Documentation of Maintenance Rule Performance Criteria for Service Air; dated June 25, 1998

Documentation of Maintenance Rule Performance Criteria for Instrument Air; dated February 14, 2001

Point Beach Maintenance Rule Unavailability Data Sheet between January 1, 2002, and January 1, 2004 for Service Air; dated March 17, 2004

List of Work Orders for Service Air initiated or completed between March 1, 2002, and March 1, 2004; dated March 17, 2004

List of Point Beach CAPs Open and Closed from March 27, 2002, to March 17, 2004; dated March 17, 2004

PBF-7030; Review of Maintenance Rule Performance (Change of Disposition from (a)(1) to (a)(2)) for Station Air; dated July 29, 2003

CAP002688; Indication of Service Air [SA] Compressor Aftercooler Leaks; dated March 27, 2002

CAP028583; Instrument and Service air Aftercooler Leakage Potential- Gross Leak in HX-050B; dated June 25, 2002

Maintenance Rule Evaluation MRE000047; Instrument and Service Aftercooler Leakage Potential - Gross Leak in HX-050B; dated June 26, 2002;

CAP028698; Service Air Compressor K-003B Exceeds Maintenance Rule Unavailability Criterion; dated July 10, 2002

MRE000055; Service Air Compressor K-003B Exceeds Maintenance Rule Unavailability Criterion; dated July 12, 2002

CAP030570; K3A SA compressor SW inlet strainer plugging; dated December 30, 2002

CE011044; K3A SA compressor SW inlet strainer plugging; dated January 2, 2003

CAP033567; SA-30 found in wrong position; dated June 15, 2003

Apparent Cause Evaluation ACE001340; SA-30 found in wrong position; dated June 17, 2003

CAP034996; K-003B Service Air Compressor Functional Failure; dated August 20, 2003

MRE0000124; K-003B Service Air Compressor Functional Failure; dated August 22, 2003

CAP051223; SA Compressor Aftercooler Return line Pipe Hanger Missing; dated October 19, 2003

CAP053072; K3B Service Air Compressor Service Water silting; dated January 22, 2004

CE013022; K3B Service Air Compressor Service Water silting; dated January 27, 2004

CAP053323; K-3B service air compressor failed PMT run; dated January 29, 2004

CAP053524; Failures of Service Air Compressor K-3B Following Overhaul; dated February 4, 2004

MRE000162; Failures of Service Air Compressor K-3B Following Overhaul; dated February 6, 2004

CAP053719; K-3A Service Air compressor control switch found off; dated February 10, 2004

MREOOO163; Perform MRE - K3A Service Air compressor switch found off; dated February 11, 2004

CAP054170; Unable to perform PC9.6 per 0-SOP-SA-00, shifting K-3A/B Service Air Compressor; dated February 24, 2004

CE013361; Unable to perform PC9.6 per 0-SOP-SA-00, shifting K-3A/B Service Air Compressor; dated February 25, 2004

CAP054465; Service Air System Classified Maintenance Rule (a)(1)

CAP054996; K-3A Service air compressor strainer found plugged with grass; dated March 20, 2004

CAP055000; K-3B Service Air Compressor found not in auto; dated March 20, 2004

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

E-1 Report; Work Week Schedule for Week of January 4, 2004

E-1 Report; Work Week Schedule for Week of January 18, 2004

E-1 Report; Work Week Schedule for Week of January 25, 2004

E-1 Report; Work Week Schedule for Week of February 1, 2004

E-1 Report; Work Week Schedule for Week of February 15, 2004

NP 10.3.6; Outage Safety Review and Safety Assessment; Revision 11

NP 10.3.7; On-Line Safety Assessment; Revision 8

WO0307371; Reactor Protection and Safeguards Analog Racks Steam Generator Level; dated January 22, 2004

Instrument and Control Procedure ICP 13.016I; Reactor Protection and Safeguards Analog Racks Steam Generator Level 18 Month Calibration Procedure; Revision 0, Unit 1

CAP053513; Apparent Difference in Train A/B Risk Importance in Safety Monitor; dated February 3, 2004

CAP053509; SI System Venting Scheduled With Associated Diesel Being Protected Equipment; dated February 3, 2004

NP10.3.7; On-Line Safety Assessment; Revision 8; dated November 12, 2003

CAP054690; Unit 1 YELLOW Risk Profile Missed on Look Ahead; dated March 11, 2004

Point Beach Plan of the Day Meeting; dated March 9, 2004

Point Beach Weekly Target Performance for week A11A2, dated March 15, 2004

1R14 Non-Routine Evolutions

CAP053298; Short Occurred While Reinstalling 1N31 Source Range Detector Drawer WO0306907; dated January 28, 2004

CAP053388; Log Entries for LCO Entry 1/28/04 Were Recorded In the Station Log Inaccurately; dated January 30, 2004 (NRC-identified issue)

Abnormal Operating Procedure 6C; Uncontrolled Motion of RCCAs [Rod Control Cluster Assemblies]; Revision 12

Point Beach Nuclear Plant Master Data Book, Section 3.2.21; Main Control Board Breakers; Revision 35

1R15 Operability Evaluations

Point Beach Engineering Evaluation 2004-0004; 1-AF-4000 Operability Assessment; Revision 0

NUREG/CR-6819, Volume 2; Common-Cause Failure Event Insights, Motor Operated Valves, Section 4

Kalsi Engineering Document No. 2311C; Operability Assessment of Limitorque SMB-00 Actuator with Non-OEM [Non-Original equipment manufacturer] Worm; Revision 0

RMP 9376-6; Limitorque Motor Operator Model SMB-00 Disassembly, Inspection, Repair, and Re-assembly; Revision 2

RMP 9376-6; Limitorque Motor Operator Model SMB-00 Disassembly, Inspection, Repair, and Re-assembly; Revision 2

Operating Instruction OI 62B; Turbine-Driven Auxiliary Feedwater System (P-29); Revision 12

DBD 01; Auxiliary Feedwater System, Section 3.3; Revision 1

Marks' Standard Handbook for Mechanical Engineers, Section 5; Strength of Materials, Fatigue; Eighth Edition

CAP051530; Non QA [Quality Assurance] Worm and Worm Gear used in QA Application for Limitorque Operator SMB-00; dated October 29, 2003

Valve IST [Inservice Testing] Valve Data Sheet; Auxiliary Feedwater Inservice Testing Background Valve Data Sheet for Valve AF-4058; Revision 0

Valve IST Valve Data Sheet; Auxiliary Feedwater Inservice Testing Background Valve Data Sheet for Valve AF-4057; Revision 0

Valve IST Valve Data Sheet; Auxiliary Feedwater Inservice Testing Background Valve Data Sheet for Valve AF-4053; Revision 0

Valve IST Valve Data Sheet; Auxiliary Feedwater Inservice Testing Background Valve Data Sheet for Valve AF-4052; Revision 0

CAP054368; Installed Capacity of 0AF-04057 and 0AF-04052 Does Not Matched Installed Mod; dated March 1, 2004

CA054666; Perform additional vibration analysis on G-01 generator

WO Initiation 202578; Vibration data 12/28/2003 indicates generator mis-alignment; schedule re-alignment for A09

CAP054116; Incorrect bearing housing fit in G-01 generator

CAP053989; Compensatory Measures Needed to Implement Seismic EAL 6.1.1.1, dated February 18, 2004

CAP053025; Need to Analyze Our Capability to Correctly Implement Seismic EALs, dated January 20, 2004

CAP053024; Events Recorded on Seismic Recorder; dated January 20, 2004

Point Beach Form PBF-2049; Operations Written Work Order, Compensatory Seismic Detector Monitoring; dated February 18, 2004

1R16 Operator Workarounds

Operator Work Around Meeting Minutes, May through December 2003

Operations Department List of Operator Workarounds; dated January 21, 2004

NP 2.1.4; Operator Workarounds; Revision 2

EOP 0; Reactor Trip or Safety Injection; Revision 41

OI 90; Control, Computer, and Cable Spreading Room Ventilation Systems; Revision 18

Alarm Response Book 1C04 1C 2-8; BA [Boric Acid] Flow Deviation or Potential Dilution In Progress; Revision 7

FSAR Chapter 9.8; Control Room Ventilation System (VNCR); dated June 2002

WO0307486; VNCR-4851B Damper Limit Switch; dated September 8, 2003

Technical Specification Test TS-9; Control Room Heating and Ventilation System Checks, Surveillances Performed between September 2003 and February 2004; Revision 26

Operator Workaround List; dated March 16, 2004

CAP032919; Starting of P-32D, Service Water Pump, Causes Unexpected D-04 Overvoltage Alarm; dated May 16, 2003

Modification MR 01-074; Add Time Delays to Battery Charger and DC Bus Voltage Alarm Circuits; Revision 0

CAP033205; Received Nuisance Alarm, 2CA20A 2-2 (D-01/D-03 125V DC Bus Under/Over Voltage); dated June 1, 2003

E-10 Report for B10B1 (WOs 0310314, 0310315, 0310316, and 0310317); dated March 16, 2004

CAP002262; Concerns About Gas Binding of SI Pumps and System Leakage; dated February 21, 2002

CA004506; Concerns About Gas Binding of SI Pumps and System Leakage; dated May 7, 2002

Modifications MR 02-11A, 02-11B, 02-12A, and 02-12B; Safety Injection Pump Discharge Piping High Point Vent Tubing; dated March 22, 2004

1R17 Permanent Plant Modifications

Plant Change Initiation; Plant Modification No. 04-010; dated February 28, 2004

10 CFR 50.59 Screening; MR 04-010; dated March 11, 2004

Design Documentation; Modification 04-010; dated February 27, 2004

Design Input Checklist; MR 04-010; dated March 15, 2004

Design Verification Notice; MR 04-010; dated March 16, 2004

Drawing System Request/Transmittal; dated March 15, 2004

Drawing Change Notices 2004-0365, -0370, -0371, -0372, -0373, and -0374; dated March 15, 2004

CAP054096; LT-939 Unit 2 Accumulator Level Failed High on Restoration; dated February 22, 2004

CAP054799; Comments to Mod 04-010 Received In An Untimely Manner; dated March 15, 2004

CAP054853; Calculation Review Missed Omission in Calc Spreadsheet for PBNP-IC-27-01-A; dated March 16, 2004

1R19 Post-Maintenance Testing

CAP052765; Tag Series 0 SW SW-2817 Tech Spec Ops [Technical Specification Operations] Rev 0-1 Not Hung As Required; dated January 12, 2004

WO0203762; Water Treatment Supply Operator; dated January 12, 2004

RMP 9376-1; Limitorque MOV Removal/Installation/Swap and Testing for Gate and Globe Valves; Revision 6

ACE 1568; Tag Series 0 SW SW-2817 Tech Spec Ops Rev 0-1 Not Hung As Required; dated January 30, 2004

Tag Series 0 SW SW-2817 Tech Spec Ops Rev0-1; dated January 12, 2004

Tag Series 0 SW SW-2817-O EM Rev0-1; dated January 12, 2004

DBD 12; Service Water System, Section 3.12; Revision 1

Bechtel Drawing 6118 M-2207 Sheet 1; P&ID [Pipe and Instrument Diagram] Service Water Point Beach Unit 2; Revision E

Bechtel Drawing 6118 M-207 Sheet 1; P&ID Service Water Point Beach Unit 1; Revision E

Westinghouse Drawing 883D195 Sheet 8; Logic Diagram Safeguard Sequence Point Beach Nuclear Plant Units 1&2; Revision D

WO0215184; SI-860D Containment Spray Pump Discharge Isolation Valve Work Order; dated January 9, 2004

RMP 9376-2; Limitorque MOV Static/DP [Differential Pressure] Testing for Gate and Globe Valve; Revision 9, dated November 6, 2002

CAP052694; 1SI-860D Stroke Time Discrepancy; dated January 8, 2004

CAP052707; SI-860D-O Fuzzy Cable Issue; dated January 9, 2004

CAP052720; 1SI-00860D Fails Stroke Test During IT 05; dated January 9, 2004

WO0215184; SI-00860D-0 P-14B Containment Spray Pump Discharge Redundant Isolation Valve; dated January 9, 2004

RMP 9376-2; Limitorque MOV Static/DP Testing For Gate and Globe Valves; Revision 9, dated January 8, 2004

CAP052691; 2G-07 Rod Drive MG [Motor Generator] Set Regulator Troubleshooting Results; dated January 8, 2004

CAP052554; 2G-07 Rod Drive MG Set Regulator Configuration; dated December 26, 2003

CAP052552; Rod Drive MG Set Degradation Issues; dated December 26, 2003

CAP052535; 28FU Fuses Blown in Power Supply to 2G-07 Regulator; dated December 23, 2003

Technical Specification Test TS-81; Emergency Diesel Generator G-01; Revision 66, dated January 25, 2004

WO0312047; Rod Drive MG Set; dated December 31, 2003

Inservice Test IT-5; Containment Spray Pumps and Valves; Revision 45, Unit 1

CAP053524; Failure of Service Air Compressor K-3B Following Overhaul; dated February 4, 2004

CAP053323; K-3B Service Air Compressor Failed PMT Run; dated January 29, 2004

CAP053422; K-3B Service Air Compressor Failure During PMT Run; dated January 31, 2004

CAP053429; K-3B Maintenance Lessons Learned Need to be Communicated to the Organization; dated February 1, 2004

CAP053431; K-3B Service Air Compressor PMT Failure; dated February 1, 2004

Technical Specification Test TS 82; Emergency Diesel Generator G-02 Monthly; Unit 0, Revision 66

CAP053434; G-02 Tag Out Concern; dated February 2, 2004

CAP053481; G-02 “CIRC OIL PRESSURE” Alarm Not Operable; dated February 3, 2004

CAP053480; G-02 ICP 13.007A-2 Out of Tolerance; February 3, 2004

CAP053473; Grounds Installed In Cubicle 2A52-67 Prior to Obtaining Tags; dated February 2, 2004

CAP053591; ICP 13.007A-2 Instrument Calibration Found That Steps Can’t Be Performed; dated February 5, 2004

CA055594; Determine If There is a Requirement to Perform Alarm Checks; dated February 9, 2004

CAP053649; Breaker Closed Prior to PMT Being Completed; dated February 8, 2004

CAP0053697; Improper Start of G-02 During Maintenance Start of G-02; dated February 10, 2004

1R22 Surveillance Testing

1ICP 6.023-1; G-05 Gas Turbine Instruments Calibration; Revision 3

CAP052788; G-05 Gas Turbine Fast Start Blade Path Temperature Trip Does Not Operate As Designed; dated January 13, 2004

CAP052740; G-05 Became Unexpectedly Inoperable While Performing ICP 06.023-1; dated January 11, 2004

Point Beach Form 0026p, Procedure Feedback Request; ICP-6.023-1, G-05 Gas Turbine Instruments Calibration; dated August 29, 2000

FSAR Chapter 8.9; Gas Turbine System; dated June 2002

FSAR Appendix A.1; Station Blackout; dated June 2002

1ICP 13.016B; Reactor Protection and Safeguards Analog Racks Flux Mismatch 18 Month Calibration; Revision 1

CAP052909; Delta Flux Controller Found Out of Tolerance During Performance of 1ICP 13.016B; dated January 16, 2004

CAP052864; 1TC-402R, CH 2 (White) QL > QU Delta Flux Controller, Failed Continuity Check; dated January 16, 2004

CE12968; 1TC-402R, CH 2 (White) QL > QU Delta Flux Controller, Failed Continuity Check; dated January 20, 2004

Temporary Procedure Change 2004-0015; Reactor Protection and Safeguards Analog Racks Flux Mismatch 18 Month Calibration; dated January 16, 2004

Temporary Procedure Change 2004-0009; Reactor Protection and Safeguards Analog Racks Flux Mismatch 18 Month Calibration; dated January 12, 2004

WO0307370; Perform 1ICP 13.16B On Flux Mismatch Instruments; dated December 19, 2003

FSAR Chapter 7.2; Reactor Protection System; dated June 2003

FSAR Chapter 7.7; Control Systems; dated June 2002

Technical Specification Test TS-81; Emergency Diesel Generator G-01; Revision 66, dated January 25, 2004

CAP053209; January 04 G-01 Diesel Cooler Fouling; dated January 26, 2004

CAP054515; 1P-29 TDAFW [Turbine-Driven Auxiliary Feedwater] Pump Abnormal Discharge Pressure Response; dated March 5, 2004

IT-8A; Cold Start of Turbine-Driven Auxiliary Feed Pump and Valve test; Unit 1, Revision 34

CAP054689; Incomplete Correction to a Procedure; dated March 11, 2004 [NRC-Identified Issue]

WO0406194; T-34A SI Accumulator Level Transmitter LT-00939 with addenda 1 through 5; dated March 30, 2004

CAP054953; Rework Associated With 2LT-939 Accumulator Level Transmitter; dated March 18, 2004

CAP054993; 2LT-939 Unit 2 A Accumulator Level Transmitter Return to Service Unsuccessful; dated March 19, 2004

CAP055055; 2LT-938 (Accumulator Level) Needs To Be Verified That It Is Reading Accurately; dated March 23, 2004

CAP055204; Troubleshooting Reveals 2T34A SI Accumulator Level Out Of Specification High; dated March 30, 2004

CAP055212; Personnel Issues With LI-939 Recovery; dated March 30, 2004

CAP055217; Extended TSAC Time For U2 and Loss of Power Generation Due to Parametric Values; dated March 30, 2004

CAP055230; 2LT-932 (Safety Related) Found Out of Tolerance; dated March 31, 2004

Log Entries dated March 30, 2004

Event Notification Worksheet dated March 30, 2004

1R23 Temporary Plant Modifications

NP 7.2.18; Temporary Modifications; Revision 0

TM Number 03-035; U1 - Facade Cable Tray Heating Tent; December 16, 2003

CA001035; Ice Build Up in U1 Facade

ACE001256; SOER 02-04 Evaluation: Facade Freezing/Ground Water Issues

NP 7.2.6; Engineering Change Process; Revision 1, dated March 31, 1999

NP 7.3.1; Temporary Modifications; Revision 11, dated October 6, 1999

RMP 9225-2; Defeating/Restoring Containment Personnel and Escape Hatch Door Interlocks; Revision 3, dated June 18, 2003

WO9927523; C-2 Outer Door; dated June 29, 2000

WO9927594; C-2 Outer Door Interlock; dated July 5, 2000

CAP054939; RTS [Return-To-Service] Testing Incorrectly Contained In Maintenance Procedure; dated March 18, 2004

CAP054869; Wrong Push Pull Cable on Containment Outer Door Personal Airlock

CAP054940; Following Procedure on Hatch Operations; dated March 18, 2004

CAP055004; TS-10 Local Leak Test of Containment Airlock unit 1; dated March 20, 2004

WO0406894; C-2 Outer Door Interlock; dated March 15, 2004

1EP6 Drill Evaluation

Drill Scenario dated June 5, 2003 and August 14, 2003

EPIP 1.1 NARS form; Nuclear Accident Reporting System Form; Revision 45 DRAFT, dated January 15, 2004

EPIP 1.1 NARS form; Nuclear Accident Reporting System Attachment B Form; Revision 29 DRAFT, dated January 5, 2004

2OS1 Access Control to Radiologically Significant Areas

ACE 001505; Numerous Personnel Contaminations >5000 CPM [Counts Per Minute]; dated October 20, 2003

CAP050745; Unannounced Changing Conditions Causes Radiological Contamination; dated October 6, 2003

CAP051511; Poor Radworker Practices Noted; dated October 29, 2003

CAP051634; Lack of ED [electronic Dosimeter] Alarm Checks Could Lead to a Violation of Technical Specifications; dated November 5, 2003

CAP053287; Potential Adverse Trend in Radiation Protection Labeling Events; dated January 28, 2004

CAP053318; Dose Assessments Not Completed in a Timely Manner; dated January 29, 2004 [NRC-Identified Issue]

CE012502; Installing Initial Containment Postings During U2R26 Was Less Than Adequate; dated October 8, 2003

Health Physics Procedure HP 1.11.1; Personnel Contamination Monitor (PCM) Use and Alarm Response; Revision 18 (January 10, 2003)

HP 3.2; Radiological Labeling, Posting, and Barricading Requirements; Revision 39 (January 23, 2004)

Point Beach Form PBF-4018; Inspection of High Radiation Area Entryways (Outside Containment); dated January 26, 2004

Radiation Protection Department Report; Radiation Protection 3rd Quarter Trends [based on Corrective Action Program Documents]; dated 4th Quarter 2003

Radiation Protection Department Report; Radiation Protection 4th Quarter Trends [based on Corrective Action Program Documents]; dated 1st Quarter 2004

RWP 04-019; General Maintenance Activities; Revision 0

Spreadsheet Documenting Internal Dose Assignments (>10 mrem Committed Effective Dose Equivalent) Since 1993; dated January 27, 2004

2OS2 ALARA Planning And Controls

ALARA Review Log (for U2R26 RWPs); Revision 1

ALARA Review Number 2003-0013; Level 3 Pre-Job and Post-Job ALARA Reviews, UT [Ultrasonic Testing] Inspection Under Reactor Head (RWP No. 03-249); dated September 23, 2003 and October 19, 2003

ALARA Review Number 2003-0023; Level 3 Pre-Job ALARA Review, Perform Inspection of Reactor Vessel Bottom Mounted Instrumentation (BMI) (RWP No. 03- 277); dated September 22, 2003

ALARA Review Number 2003-0023; In-Progress ALARA Review/Assessment, Job at 50 percent of Original Dose Estimate, Under Vessel BMI Work; dated October 8, 2003

ALARA Review Number 2003-0023; In-Progress ALARA Review/Assessment, Job at 50 percent of Original Dose Estimate, Under Vessel BMI Work; dated October 19, 2003

ALARA Review Number 2003-0023; Level 3 Post-Job ALARA Review, Perform Inspection of Reactor Vessel BMI; dated November 1, 2003

CAP051295; Under Vessel Insulation Did Not Fit; dated October 21, 2003

CAP053254; ALARA Program Procedure Deficiency; dated January 27, 2004 [NRC-Identified Issue]

CAP053255; Individual Dose Goals Not Established for Jobs; dated January 27, 2004 [NRC-Identified Issue]

CAP053274; Departmental Dose Goals for Week of 1/19/04 Not Met in RP, Mtn, and Ops; dated January 28, 2004

CAP053297; ALARA and Under-Vessel Insulation Work; dated January 28, 2004 [NRC-Identified Issue]

Framatome ANP RVHP Nozzle Inspection/Repair ALARA Plan; Revision 0 (September 30, 2003)

Health Physics Implementing Procedure HPIP 4.40; TEDE ALARA Evaluations; Revision 0 (February 6, 2002)

NP 4.2.1; ALARA Program; Revision 11 (November 19, 2003)

Nuclear Plant Memorandum NPM 2004-0051; 2004 Dose Goals for Point Beach Nuclear Plant; dated January 20, 2004

Radiological Survey, Keyway Unit 2; dated October 4, 2003

4OA1 Performance Indicator Verification

ACE001219; Dose Limit Exceeded During U1 Containment Entry; dated March 4, 2003

ACE001520; Loss of Control of Very High Radiation Area Key; dated October 28, 2003

CAP032764; U2 Mixed Bed North Gate Showing Signs of Degradation; dated May 9, 2003

NPM 2003-0077; NRC Occupational Exposure Performance Indicator Data for January 2003; dated February 4, 2003

NPM 2003-0162; NRC Occupational Exposure Performance Indicator Data for February 2003; dated March 5, 2003

NPM 2003-0241; NRC Occupational Exposure Performance Indicator Data for March 2003; dated April 2, 2003

NPM 2003-0316; NRC Occupational Exposure Performance Indicator Data for April 2003; dated May 6, 2003

NPM 2003-0417; NRC Occupational Exposure Performance Indicator Data for May 2003; dated June 12, 2003

NPM 2003-0553; NRC Occupational Exposure Performance Indicator Data for July 2003; dated August 6, 2003

NPM 2003-0642; NRC Occupational Exposure Performance Indicator Data for August 2003; dated September 19, 2003

NPM 2003-0727; NRC Occupational Exposure Performance Indicator Data for September 2003; dated October 3, 2003

NPM 2003-0794; NRC Occupational Exposure Performance Indicator Data for October 2003; dated November 7, 2003

NPM 2003-0842; NRC Occupational Exposure Performance Indicator Data for November 2003; dated December 3, 2003

NPM 2004-0010; NRC Occupational Exposure Performance Indicator Data for December 2003; dated January 9, 2004

4OA2 Identification and Resolution of Problems

CAP034784; NRC 95-003-1 Inspection Team Questions on EALs; dated August 12, 2003

ACE001571; Perform an Apparent Cause Evaluation of CAP052829 in Accordance with NP 5.3.1; dated January 16, 2004

RCE000241; Change of EAL Scheme Results in Apparent Violation; dated January 12, 2004

CAP052829; Untimely Root Cause Evaluation for CAP034784; dated January 15, 2004

EPIP 1.3; Dose Assessment and Protective Action Recommendations; Revision 33, dated January 15, 2004

EPIP 1.2; Emergency Classification; Revision 40, dated January 15, 2004

EPIP 1.1; Initial Classification; Revision 9, dated August 31, 1984

266/82-02-05 & 301/82-02-05; SER [Safety Evaluation Report] Related to Operation of Point Beach Nuclear Plant, dated January 1984

NUREG-0654 FEMA-REP-1; Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants; Revision 1

CAP052916; EAL Setpoint in Question; dated January 16, 2004

Temporary Procedure Change 2002-0372; SEP [Shutdown Emergency Procedure] 3.0, Loss of All AC [Alternating Current] Power to a Shutdown Unit; dated May 23, 2002

Safety Evaluation Screening 2002-0216; SEP 3.0, Loss of All AC Power to a Shutdown Unit; dated May 23, 2002

NP 5.1.8; 10 CFR 50.59/72.48 Applicability, Screening and Evaluation (New Rule); Revision 4

SEP 3.0 Unit 1; Loss of All AC Power to a Shutdown Unit; Revision 19

Background Document SEP-3.0; Loss of All AC Power to a Shutdown Unit; Revision 12

SEP 3.0 Unit 2; Loss of All AC Power to a Shutdown Unit; Revision 20

CAP003112; Steam Generator Narrow Range Level Uncertainty at Lower Temperature; dated April 30, 2002

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
AFW	Auxiliary Feedwater
ALARA	As-Low-As-Is-Reasonably-Achievable
AOP	Abnormal Operating Procedure
CA	Corrective Action
CAP	Corrective Action Program Document
CE	Condition Evaluation
CL	Checklist
CCW	Component Cooling Water
CFR	Code of Federal Regulations
DBD	Design Basis Document
DP	Differential Pressure
EAL	Emergency Action Level
EDG	Emergency Diesel Generator
EPIP	Emergency Plan Implementing Procedure
FHAR	Fire Hazards Analysis Report
FIN	Finding
FPER	Fire Protection Evaluation Report
FSAR	Final Safety Analysis Report
HRA	High Radiation Area
HVAC	Heating, Ventilation, and Air Conditioning
ICP	Instrument and Control Procedure
IMC	Inspection Manual Chapter
IST	Inservice Testing
IT	Inservice Test
MG	Motor Generator
MOV	Motor-Operated Valve
MR	Modification
MRE	Maintenance Rule Evaluation
NCV	Non-Cited Violation
NFPA	National Fire Protection Association
NP	Nuclear Plant Procedures Manual
NPM	Nuclear Plant Memorandum
NRC	Nuclear Regulatory Commission
OWA	Operator Workaround
PI	Performance Indicator
PMT	Post-Maintenance Testing
RCE	Root Cause Evaluation
RHR	Residual Heat Removal
RMP	Routine Maintenance Procedure
RWP	Radiation Work Permit
SA	Service Air
SDP	Significance Determination Process
SEP	Shutdown Emergency Procedure

SGNR	Steam Generator Narrow Range
SI	Safety Injection
SM	Shift Manager
SRNI	Source Range Nuclear Instrument
SRO	Senior Reactor Operator
STA	Shift Technical Advisor
SW	Service Water
TMod	Temporary Modification
TS	Technical Specification
TSAC	Technical Specification Action Condition
U2R26	Unit 2 Refueling Outage 26
URI	Unresolved item
WCC	Work Control Center
WO	Work Order