## October 26, 2005

Mr. Dennis L. Koehl Site Vice President Point Beach Nuclear Plant Nuclear Management Company, LLC 6590 Nuclear Road Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

NRC INTEGRATED INSPECTION REPORT 05000266/2005010;

05000301/2005010

Dear Mr. Koehl:

On September 30, 2005, 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 October 6, 2005, with you and members of your staff.

The inspection examined activities conducted under your license as they relate to safety and 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 your personnel.

Based on the results of this inspection, three findings of very low safety significance were identified. These findings were determined to involve violations of NRC requirements. However, because these violations were of very low safety significance, non-willful and non-repetitive, and because the violations were entered into your corrective action program, the NRC is treating these findings as Non-Cited Violations, consistent with Section VI.A. of the NRC Enforcement Policy.

In addition to the routine NRC inspection and assessment activities, Point Beach performance is being evaluated quarterly as described in the Mid-Cycle Performance Review Letter - Point Beach Nuclear Plant, dated August 30, 2005. 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. During this inspection period, the NRC reviewed Point Beach operational performance, inspection findings, and performance indicators. Based on this review, we concluded that Point Beach is operating safely.

D. Koehl -2-

We determined that no additional regulatory actions, beyond the already increased inspection activities and management oversight, are currently warranted.

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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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 <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Satorius, Director Division of Reactor Projects

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

Enclosure: Inspection Report 05000266/2005010; 05000301/2005010

w/Attachment: Supplemental Information

See Attached Distribution

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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: 05000266/2005010; 05000301/2005010

Licensee: Nuclear Management Company, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: 6610 Nuclear Road

Two Rivers, WI 54241

Dates: July 1 through September 30, 2005

Inspectors: R. Krsek, Senior Resident Inspector

M. Morris, Resident Inspector

P. Higgins, Resident Inspector, Kewaunee Plant

P. Lougheed, Senior Reactor Engineer

J. Giessner, Reactor Engineer

A. Dunlop, Senior Reactor Engineer B. Palagi, Senior Operations Engineer

N. Valos, Operations Engineer

C. Moore, Operations Engineer (in training)

F. Ramirez, Reactor Engineer L. Haeg, Reactor Engineer

M. Wilk, Reactor Engineer

T. Ploski, Senior Emergency Preparedness Inspector R. Alexander, Emergency Preparedness Inspector

M. Kunowski, Project Engineer

Approved by: P. Louden, Chief

Branch 5

Division of Reactor Projects

#### **SUMMARY OF FINDINGS**

IR 05000266/2005010, 05000301/2005010; 07/01/2005 - 09/30/2005; Point Beach Nuclear Plant, Units 1 and 2; Maintenance Effectiveness, Maintenance Risk Assessment and Emergent Work Evaluation, and Surveillance Testing.

This report covers a 3-month period of baseline resident inspection, operator licensing requalification examination inspection, biennial review of maintenance effectiveness, and emergency preparedness inspections for the Point Beach Nuclear Plant, Units 1 and 2, conducted by Region III and resident inspectors. In addition, an occupational radiation safety inspection conducted January 3 through 7, 2005, is also documented in this report. Three Green findings with associated Non-Cited Violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the Significance Determination Process does not apply may be Green or be assigned a severity level after Nuclear Regulatory Commission (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. <u>Inspector-Identified and Self-Revealed Findings</u>

# **Cornerstone: Mitigating Systems**

• Green. The inspectors identified a Green finding with an associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to take adequate corrective action for microbiologically-induced corrosion (MIC) of the endbells of the service water cooling system of the G-01 emergency diesel generator (EDG). Specifically, significant wastage caused by MIC, on the EDG endbells was identified in 2001 and work orders were written to replace the endbells. However, as of March 20, 2005, the endbells were not replaced which resulted in a self-revealed through-wall leak from MIC on an endbell, requiring the diesel to be removed from service to effect repairs. The licensee took immediate corrective actions to replace the endbell, followed by replacement of other susceptible EDG endbells. In addition, the licensee proposed changes to the predictive maintenance program to better identify potential sources of MIC corrosion in service water system components.

The issue was more than minor because the finding was associated with the equipment performance attribute of the Mitigating System cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding could have become a more significant safety concern. The finding was determined to be of very low safety significance because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification allowed outage time, and no risk due to external

events. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution, because the licensee failed to take adequate corrective actions. (Section 1R12.1)

• Green. The inspectors identified a Green finding with an associated Non-Cited Violation of Technical Specification 3.8.1.E for the self-revealed problem on August 7, 2005, when one of the required room exhaust fans for the G-01 EDG failed to start due to a mispositioned breaker. The licensee returned the breaker to the proper position and investigated the cause of the mispositioning. The licensee planned and had taken additional corrective actions to provide clarification for aborting a procedure or scheduled activity and for ensuring equipment was appropriately returned to service.

The finding was more than minor, in that, it was associated with the configuration control attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance because it did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification (TS)-allowed outage time, and no risk due to external events. The inspectors also determined that a primary cause of this finding was related to the crosscutting area of human performance, because the licensee failed to ensure that the appropriate conditions were established after completion and cancellation of maintenance activities and before re-aligning G-01 to the safeguards bus. (Section 1R13.2)

• Green. The inspectors identified a Green finding with an associated Non-Cited Violation of Technical Specification 5.4.1 for the failure to have a procedure to trip a loss-of-voltage time delay relay, a specific and foreseen potential malfunction, after the time delay function of the channel had failed. Specifically, on August 17, 2005, relay 1-62-3/A-06, associated with one channel of the 4160-Volt loss-of-voltage time delay function of the loss of offsite power EDG start and load sequence instrumentation, failed during calibration and testing. The licensee was not able to place the channel in trip in one hour (as required by TSs) due to not having an established procedure for performing this activity. The licensee took immediate corrective actions to correct the condition by replacing the time delay relay. In addition, at the end of the inspection period, the licensee planned additional evaluations and corrective actions to ensure the capability of performing the Technical Specification Action Condition within the required time frame.

The finding was more than minor, in that, it was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low risk significance because it did not

involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the TS-allowed outage time, and no risk due to external events. (Section 1R22)

# B. <u>Licensee-Identified Violations</u>

A violation of very low significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking number 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 September 23, 2005, when a subsequent downpower occurred to begin the Cycle 29 Refueling Outage (U1R29).

Unit 2 began the inspection period in the Cycle 27 Refueling Outage (U2R27). On July 9, 2005, the reactor was taken critical and on July 16, 2005, the reactor was at 100 percent power. Unit 2 remained at 100 percent power throughout the inspection period, except for routine downpowers for surveillances and testing.

#### 2. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

### a. Inspection Scope

The inspectors reviewed the facility design and licensee procedures to evaluate the plant's likely response to summertime hot weather conditions such as lake grass intrusion and high room temperatures for rooms housing safety-related equipment. The inspectors walked down accessible portions of risk-significant equipment and systems susceptible to hot weather and verified that the trash racks were free from lake grass and other debris which might prevent adequate cooling of plant equipment. The inspectors reviewed the corrective actions and work orders (WOs) written to correct identified problems and assessed whether completion dates ensured that corrective maintenance was completed prior to the onset of hot weather. For those issues where corrective actions were not completed prior to the onset of hot weather, the inspectors reviewed the impact on equipment operability due to the identified hot weather issue. These observations constituted one inspection procedure sample.

## b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns

# a. <u>Inspection Scope</u>

The inspectors performed partial walkdowns of accessible portions of risk-significant systems to determine the operability of the systems. The inspectors utilized system valve lineup and electrical breaker checklists, tank level books, plant drawings, and selected operating procedures to determine if the systems were correctly aligned to

perform the intended design functions. The inspectors also examined the material condition of the components and observed operating equipment parameters to determine if there were no obvious deficiencies. The inspectors reviewed completed WOs and calibration records associated with the systems for issues that could affect component or train functions. The inspectors used the information in the appropriate sections of the Final Safety Analysis Report (FSAR) to determine the functional requirements of the system. Partial system walkdowns of the following systems constituted two inspection procedure samples:

- Residual Heat Removal (RHR), in the Emergency Core Cooling System mode;
   and
- Auxiliary Feedwater (AFW).

# b. <u>Findings</u>

No findings of significance were identified.

## .2 Complete System Walkdowns

### a. Inspection Scope

The inspectors performed a complete system alignment inspection of the service water (SW) system. This safety-related system was selected based on the risk-significance of the system in the licensee's probabilistic risk assessment. The inspection consisted of the following activities:

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

The inspectors also reviewed selected documented issues to determine if the issues were properly addressed in the licensee's corrective action program. The walkdown of the SW system constituted one inspection procedure 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 focused on the following attributes: the availability, accessibility, and condition of fire fighting equipment; the control of transient combustibles and ignition sources; and the condition and status of installed fire barriers. The inspectors selected fire areas for inspection based on the area's overall fire risk contribution, as documented in the Individual Plant Examination of External Events or the potential to impact equipment which could initiate a plant transient.

In addition, the inspectors assessed these additional fire protection attributes during walkdowns: fire hoses and extinguishers were in the designated locations and available for immediate use; unobstructed fire detectors and sprinklers; transient material loading within the analyzed limits; and fire doors, dampers, and penetration seals in satisfactory condition. The inspectors also determined if minor issues identified during the inspection were entered into the licensee's corrective action program. The walkdown of the following selected fire zones constituted three inspection procedure samples:

- Fire Zone 122, Water Treatment Area;
- Fire Zone 131, Primary Auxiliary Building, 8'-Elevation, Holdup Tank Pump Room; and
- Fire Zone 141, Primary Auxiliary Building 8'-Elevation, North Corridor.

### b. Findings

No findings of significance were identified.

## 1R11 Licensed Operator Requalification (71111.11)

Regional Inspector Review of Licensed Operator Requalification

## .1 Facility Operating History

# a. <u>Inspection Scope</u>

The inspectors reviewed the plant's operating history from September 2003 through August 2005, to assess whether the Licensed Operator Requalification Training (LORT) program had addressed operator performance deficiencies noted at the plant.

#### b. Findings

No findings of significance were identified.

# .2 Licensee Regualification Examinations

# a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT program. The inspectors reviewed the 2004 biennial written requalification examinations and 2005 annual operating test material to evaluate general quality, construction, and difficulty level. The operating portion of the examination was inspected between August 29 and September 2, 2005. The operating examination material consisted of two dynamic simulator scenarios and five job performance measures (JPMs). The biennial written examination was administered in December 2004, and consisted of 30 open reference, multiple choice questions on administrative controls, systems, and procedural requirements. The inspectors reviewed the methodology for developing the examinations, including the LORT program 2-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors reviewed the licensee's program and assessed the level of examination material duplication during successive examination weeks. The inspectors also interviewed members of the licensee's management, operations and training staff, and discussed various aspects of the examination development.

### b. Findings

No findings of significance were identified.

## .3 Licensee Administration of Requalification Examinations

#### a. Inspection Scope

The inspectors observed administration of the requalification operating test to assess the licensee's effectiveness in conducting the test and to assess the facility evaluators' ability to determine adequate performance using objective, measurable performance standards. The inspectors evaluated, in parallel with the facility evaluators, the performance of seven licensed operators from one operating shift crew and one shift technical advisor during three dynamic simulator scenarios. The evaluated positions consisted of four senior reactor operators, three reactor operators, and one shift technical advisor. In addition, the inspectors observed licensee evaluators administer five JPMs to selected licensed operators. The inspectors observed the training staff personnel administer the operating test, including pre-examination briefings, observations of operator performance, and individual and crew evaluations after the dynamic simulator scenarios.

#### b. Findings

No findings of significance were identified.

# .4 Examination Security

# a. Inspection Scope

The inspectors observed and reviewed the licensee's overall licensed operator requalification examination security program related to examination physical security (e.g., access restrictions and simulator considerations) and integrity (e.g., predictability and bias). The inspectors also reviewed the facility licensee's examination security procedure, any corrective actions related to past or present examination security problems at the facility, and the implementation of security and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the examination process.

# b. Findings

No findings of significance were identified.

## .5 Licensee Training Feedback System

### a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT program up-to-date, including the use of feedback from plant events and industry experience information. The inspectors interviewed licensee personnel (operators, instructors, and management) and reviewed applicable procedures. In addition, the inspectors reviewed the licensee's quality assurance oversight activities, including licensee training department self-assessment reports. The inspectors evaluated the licensee's ability to assess the effectiveness of its LORT program and their ability to implement appropriate corrective actions.

# b. <u>Findings</u>

No findings of significance were identified.

# .6 Licensee Remedial Training Program

## a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of remedial training conducted since the previous annual requalification examinations. The inspectors reviewed the remedial training documentation for two individuals that demonstrated unsatisfactory performance during the 2004 biennial written examination and operating test. The inspectors reviewed the training package to ensure that performance and knowledge weaknesses identified during the annual examination were adequately addressed. The inspectors also reviewed remedial training procedures and records to ensure that the subsequent re-evaluations were properly completed prior to returning the individuals to licensed duties.

# b. Findings

No findings of significance were identified.

## .7 Conformance with Operator License Conditions

### a. Inspection Scope

The inspectors evaluated facility and individual operator license conformance with the requirements of 10 CFR Part 55. The inspectors reviewed the licensee's program for maintaining active operator licenses to assess compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the licensee's procedural compliance and the process for tracking on-shift hours for licensed operators. The inspectors also conducted reviews to verify that proficiency watch-standing hours were credited to the correct control room positions in accordance with Technical Specifications (TS). The inspectors reviewed eight licensed operator medical records to ensure compliance with 10 CFR 55.21 and 55.25, and medical standards delineated in American National Standard Institute/American Nuclear Society (ANSI/ANS) 3.4. In addition, the inspectors reviewed the licensee's LORT program to assess compliance with the requalification program requirements prescribed by 10 CFR 55.59(c).

### b. Findings

No findings of significance were identified.

## .8 Conformance with Simulator Requirements

### a. Inspection Scope

The inspectors assessed the adequacy of the licensee's simulation facility (simulator) for use in operator licensing examinations and for satisfying experience requirements as prescribed in 10 CFR 55.46, "Simulation Facilities." The inspectors reviewed a sample of simulator performance test records (i.e., transient tests, malfunction tests, and reactor core performance tests), simulator WO records, and the process for ensuring continued assurance of simulator fidelity in accordance with 10 CFR 55.46. The inspectors reviewed and evaluated the discrepancy process to ensure that simulator fidelity was maintained. This was accomplished by a review of discrepancies written over the last two years to ensure that corrective actions were performed and completed in a timely fashion commensurate with the safety significance of the item (prioritization scheme). Open simulator discrepancies were reviewed for importance relative to impact on 10 CFR 55.45 and 55.59 operator actions as well as nuclear and thermal hydraulic operating characteristics. Closed simulator discrepancies were reviewed for timeliness of resolution. The inspectors reviewed the licensee's recent simulator core performance testing to assess that the simulator adequately replicates the actual reactor plant core's performance characteristics. The inspectors also conducted interviews with the licensee's simulator configuration control personnel and completed the Nuclear Regulatory Commission (NRC) Inspection Procedure 71111.11, Appendix C, checklist to evaluate whether or not the licensee's plant-referenced simulator was operating adequately as required by 10 CFR 55.46(c) and (d).

# b. Findings

No findings of significance were identified.

## .9 Biennial Written Examination and Annual Operating Test Results

### a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the annual job performance measure operating tests, and the annual simulator operating tests (required to be given per 10 CFR 55.59(a)(2)) administered by the licensee during calender year 2005. The overall results were compared with the significance determination process in accordance with NRC Inspection Manual Chapter (IMC) 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)." Year 2005 was the first year of the licensee's 24-month training program; therefore, no written examination will be administered this year. This represented one sample.

### b. Findings

No findings of significance were identified.

## 1R12 Maintenance Effectiveness (71111.12)

# .1 Resident Inspector Routine Review

#### a. Inspection Scope

The inspectors performed maintenance effectiveness reviews of the SW system. The inspectors reviewed repetitive maintenance activities 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, and current equipment performance status.

For the SW system, the inspectors reviewed significant WOs and CAPs to determine if failures were appropriately identified, classified, and corrected, and if unavailable time was correctly calculated. The reviews of maintenance effectiveness for the SW system constituted one inspection procedure sample.

#### b. Findings

Introduction: The inspectors identified a Green Finding with an associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to take adequate corrective action for a condition adverse to quality. Specifically, on March 20, 2005, a through-wall leak on an endbell of a SW heat

exchanger for emergency diesel generator (EDG) G01 was self-revealed. The need to replace this endbell prior to the March 2005 through-wall failure was previously identified in the corrective action system in 2001.

Description: During a review of SW maintenance issues, the inspectors noted an increasing trend in SW leaks attributed to microbiologically-induced corrosion (MIC). The initial occurrence noted was the unavailability of the G-01 EDG due to the need to repair a through-wall leak on one of the EDG cooling system heat exchanger endbells which occurred on March 20, 2005. The licensee's maintenance rule evaluation (MRE000361) and condition evaluation (CE015467) concluded that the poor condition of the endbells due to pitting from MIC was known for nearly ten years. Most recently, a condition report for the heat exchanger endbells was written in 2001 (CR 01-1856) when the licensee discovered that a portion of the endbell which failed in March 2005 had an area where the thickness of the endbell was only 0.015-inch greater than the required minimum wall thickness. This condition report resulted in two separate WOs in 2002 (WOs 0212337 and 0212338) to replace all of the EDG endbells. However, these WOs were not appropriately prioritized and were not implemented prior to the March 20, 2005, through-wall failure. Subsequently, the priority of the WOs was changed to accelerate the replacement of the endbells.

In addition to the recurrent EDG endbell MIC leakage, the licensee also experienced a through-wall SW leak on April 22, 2005, for the G-02 EDG heat exchanger alternate SW supply line; a leak on May 9, 2005, on the seal supply bypass line to a Unit 1 circulating water pump; and, a leak caused by MIC on November 10, 2003, (CAP051703) on the SW supply line to the Unit 2 AFW pump. In response to the April 22, 2005, leak the licensee conducted an apparent cause evaluation (ACE), ACE001869; however, the inspectors noted that the extent of condition review in that ACE was limited to the SW piping in the AFW pump room, and did not include other low flow or normally isolated flow SW piping that was susceptible to MIC. In addition, the inspectors noted in the condition evaluation for the November 2003 leak, the licensee documented that in 1998, the licensee discussed and developed preliminary plans to perform an aggressive inspection of the SW piping in the AFW room using 100% ultrasonic scanning technology. The CAP further noted that although some inspections were performed, the licensee was not aggressive in determining the overall material condition and developing a piping replacement plan for the piping in the AFW room.

The inspectors determined that the failure to take adequate corrective actions for the 2001 problem with the G01 EDG endbell issue, a condition adverse to quality, was a performance deficiency warranting a significance evaluation. Due to the lack of adequate corrective actions, EDG endbell through-wall leakage was self-revealed by MIC on March 20, 2005.

<u>Analysis</u>: The inspectors concluded that the finding was greater than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," issued on May 19, 2005, in that, the finding was associated with the equipment performance attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding could have become a more significant safety concern.

The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," because the finding was associated with the operability, availability, and reliability of a train in the mitigating system cornerstone. For the Phase 1 screening, the inspectors answered the questions in the Mitigating System column and determined that the finding did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the TS-allowed outage time, and no risk due to external events. Therefore, the finding was of very low safety significance (Green).

The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution (corrective action), because the licensee failed to take adequate corrective actions for problems identified in 2001 and 2003, concerning leakage caused by MIC in the SW piping.

<u>Enforcement</u>: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that conditions adverse to quality are promptly identified and corrected. Contrary to this, as of March 20, 2005, the licensee failed to correct MIC of the EDG SW cooling heat exchanger endbells identified in 2001. This failure resulted in the development of a through-wall SW system leak on March 20, 2005, associated with EDG G01 which required declaring the EDG inoperable and taking the EDG out-of-service for repair. Because this violation was of very low safety significance, non-willful, non-repetitive, and documented in the licensee's corrective action program as CAP062892, this violation is being treated as a Non-Cited Violation (NCV 05000266/2005010-01; 05000301/2005010-01), consistent with Section VI.A of the NRC Enforcement Policy.

The licensee took immediate corrective actions to correct the condition by replacing the leaking endbell. In addition, the licensee replaced the remaining in-service endbells on the EDGs by July 2005. Finally, the licensee revised the preventive maintenance program to check for MIC by enhancing the inspection techniques through the use of ultrasound detection in combination with existing techniques for predictive maintenance of the SW piping.

## .2 Regional Specialist Biennial Review (71111.12B)

## a. Inspection Scope

The inspectors reviewed the maintenance rule periodic evaluation report, which was required per 10 CFR 50.65(a)(3). This evaluation was a periodic assessment of the effectiveness of maintenance for those structures, systems, and components (SSCs) included within the scope of the rule. For SSCs where maintenance has not been demonstrated as being effective, by either excessive failures or unavailability, the licensee monitors under (a)(1) of the rule, such that the SSCs receive the appropriate attention to correct deficiencies. The remaining SSCs where maintenance has been demonstrated as being effective, usually through the use of reliability and/or

unavailability performance criteria, the licensee assesses under (a)(2) of the rule, to ensure the SSCs will continue to be able to perform their intended function. The objective of the inspection was to:

- Verify that the periodic evaluation was completed within the time restraints
  defined in 10 CFR 50.65 (once per refueling cycle, not to exceed two years),
  ensuring that the licensee reviewed its goals, monitoring, preventive
  maintenance activities, industry operating experience, and made appropriate
  adjustments as a result of that review;
- Verify that the licensee balanced reliability and unavailability for safety significant SSCs during the previous refueling cycle;
- Verify for SSCs being monitored under (a)(1) of the rule, that goals were being met, corrective actions were appropriate to correct the defective condition including the use of industry operating experience, and (a)(1) activities and related goals were adjusted as needed; and
- Verify that the licensee has established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that have suffered repeated maintenance preventable functional failures including a verification that failed SSCs were considered for monitoring under (a)(1) of the rule.

The inspectors examined the periodic evaluation reports for calendar years 2003 and 2004. To evaluate the effectiveness of (a)(1) and (a)(2) activities, the inspectors examined (a)(1) action plans, justifications for returning SSCs from (a)(1) to (a)(2), and a number of CAPs to evaluate the licensee's functional failure determinations. In addition, the CAPs were reviewed to verify that the threshold for identification of problems was at an appropriate level and the associated corrective actions were appropriate. The inspectors focused the inspection on the following five SSCs (samples):

- C AFW
- C Diesel Generator
- C Condensate and Feedwater
- C Service Air
- C Vital Instrument Bus

## b. Findings

No findings of significance were identified.

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

# .1 Planned and Emergent Work Reviews

### a. Inspection Scope

The inspectors reviewed risk assessments for planned and emergent maintenance activities. 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 assessed whether evaluation, planning, control, and performance of the work was done in a manner to reduce the risk and minimize the duration where practical, and whether 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 the equipment configurations were properly listed, that protected equipment was identified and controlled as appropriate, and that significant aspects of plant risk were communicated to the necessary personnel. The reviews of maintenance risk assessment and emergent work evaluation constituted four inspection procedure samples:

- Planned and emergent maintenance during the week of July 18, 2005;
- Planned and emergent maintenance during the week of August 15, 2005;
- Planned and emergent maintenance during the week of August 22, 2005; and
- Planned and emergent maintenance during the week of September 12, 2005.

## b. Findings

No findings of significance were identified.

# .2 Inoperable EDG Aligned to Safeguards Bus 1A-05

#### a. Inspection Scope

The inspectors reviewed risk assessments for planned and emergent maintenance activities. 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 assessed whether evaluation, planning, control, and performance of the work was done in a manner to reduce the risk and minimize the duration where practical, and whether 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 the equipment configurations were properly listed, that protected equipment was identified and controlled as appropriate, and that significant aspects of plant risk were communicated to the necessary personnel. This review of maintenance emergent work for the week of August 1, 2005, including the effect of EDG G-01

unexpectedly out-of-service due to a misaligned support system, constituted one inspection procedure sample.

# b. <u>Findings</u>

Introduction: A Green finding associated with an NCV of TS 3.8.1.E, "One or more required standby emergency power source(s) inoperable," was self-revealed for the failure to realign the breaker for the EDG room exhaust fan (W-12A) to the normal, trip-free position, after cancellation of scheduled maintenance to replace the breaker. On August 7, 2005, upon start of the diesel, the exhaust fan did not start and the breaker misalignment was self-revealed. With the fan inoperable and ambient temperature greater than 80 degrees Fahrenheit (°F), the EDG was considered inoperable by the licensee.

<u>Description</u>: On August 1, 2005, licensee personnel returned the G-01 EDG to operable status, following realignment to the 4.16-kiloVolt (kV) Class 1E Safeguards Bus 1A-05, after completion and cancellation of several maintenance activities. However, plant personnel inadvertently failed to return the EDG room exhaust fan switch to the normal position. Around 1:00 a.m. on August 2, 2005, the licensee identified that the G-01 EDG was not operable for a period of approximately 54 minutes on August 1, 2005, as a result of the W-12A exhaust fan control switch positioned 'OFF' with ambient temperature greater than 80°F. After identifying this problem on August 2, operators repositioned the fan control switch to 'ON'; however, operators did not verify the position of the exhaust fan breaker or attempt to start the fan.

On August 7, 2005, during the performance of TS Test TS-81, "Emergency Diesel Generator G-01 Monthly," the licensee moved the W-12A exhaust fan switch from the ON position to the RUN position, but the fan, unexpectedly, failed to start. Upon investigation, operators discovered that the breaker for the fan motor was in the 'OFF' position instead of the 'TRIP FREE' position. The breaker was repositioned and the fan operated satisfactorily. The licensee verified the position of the breakers for the other EDG exhaust fans. As discussed in the TS bases, for the EDG to be considered operable, both diesel room exhaust fans were required to be operable, if the ambient air temperature was greater than 80°F. The licensee determined that from August 1, when the G-01 EDG was re-aligned to the 1A05 bus following the maintenance, to August 7, 2005, when the breaker for the W-12A fan was correctly re-positioned, the outside ambient air temperature was greater that 80°F for a total of 31 hours and exhaust fan W-12A (one of two fans for the G-01 EDG) was not operable.

After the mis-positioned breaker was identified, the licensee verified that the safety monitor risk had not increased significantly due to other equipment out-of-service with the EDG G-01 inoperable. The licensee also performed walkdowns of the other EDGs and verified the support systems were operable. Subsequently, as part of the licensee's apparent cause evaluation (ACE001913) of this event, the licensee identified that on August 4, 2005, with the G-01 EDG inoperable for several hours and the G-04 EDG inoperable for maintenance and testing, the plant exceeded the 2-hour completion time for TS Action Condition 3.8.1.G and 4 hours had elapsed of the 6-hour completion time of the follow-on TS Action Condition 3.8.1.H, to shutdown both reactors in 6 hours. The

licensee returned G-04 to an operable condition after the 4 hours to exit the 3.8.1.H Action Condition.

The inspectors determined that the failure to verify that the breaker for the G-01 room exhaust fan was in the proper position when G-01 was re-aligned to the bus was a licensee performance deficiency warranting a significance evaluation.

<u>Analysis</u>: The inspectors concluded that the finding was greater than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," issued on May 19, 2005, in that, the finding was associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.

The finding could have affected the EDG's ability to fully perform its intended function had a loss of offsite power occurred from August 1 to 7, 2005. Consequently, the inspectors evaluated the finding using IMC 0609, Appendix A, "At Power Screening," issued on December 1, 2004. The finding did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the TS allowed outage time, and no risk due to external events; therefore, the finding was of very low safety significance. Therefore, the finding was considered to be of very low significance (Green).

The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance, because the licensee failed to ensure that the appropriate conditions were established after completion and cancellation of maintenance activities and before re-aligning EDG G-01 to the safeguards bus.

<u>Enforcement</u>: Technical Specification 3.8.1 requires that one or more required standby emergency power source(s) be capable of supplying each 4.16-kV/480-Volt bus. Contrary to this requirement, the G-01 EDG was aligned to the 1A05 4.16-kV bus but was not operable for a total of 31 hours from August 1-7, 2005, when ambient temperature was greater than 80°F, and thus was not capable of supplying the bus. No other EDG was supplying the bus during this period.

The licensee wrote CAP066106, "Inoperable Emergency Diesel Generator Aligned to Safeguards Power Supply," on August 2 for the mis-positioned fan control switch and CAP066228, "W-12A, G-01 EDG Room Exhaust Fan Breaker, 1B52-329H, Found in OFF Position," on August 8 for the mis-positioned breaker. Apparent Cause Evaluation (ACE) 001913, "Inoperable Emergency Diesel Generator Aligned to Safeguards Power Supply," was completed on September 1 and evaluated the cause of both problems. Also, CAP066091 documented the quality issues that resulted in the W-12A fan breaker being mis-positioned. Because this violation was of low safety significance and was entered into the licensee's corrective action program, this violation is being treated as an NCV (NCV 05000266/2005010-02; 05000301/2005010-02), consistent with Section VI.A of the NRC Enforcement Policy.

The licensee took immediate corrective actions to correct the condition by restoring the breaker to the required position. In addition, the licensee planned additional corrective actions to issue guidance relative to procedure use to clarify the use of "N/A" for procedure steps and expectations for aborting procedures. The licensee also issued guidance covering the expectations relative to equipment return to service. Finally, the licensee planned to issue guidance to the operations staff which would address actions to take when confronted with unexpected situations.

# 1R14 Personnel Performance Related to Non-Routine Plant Evolutions and Events (71111.14)

## .1 Unit 2 Bank D, Control Rod C-7 Rod Drop During Power Ascension

# a. Inspection Scope

On July 11, 2005, Unit 2 was in the process of reactor startup and power ascension following the refueling outage. The reactor was at 28 percent power and reactor engineering had completed the required flux map for nuclear instrument calibrations. Following the completion of the review of the flux map, reactor engineering informed the operating crew that the power could be increased to 47 percent for the next flux map. The operations crew commenced the load ramp to the target value. When the control rods were stepped out to maintain T-average, control rod C-7 dropped into the core. The operators entered the appropriate abnormal procedures and stabilized the plant. Reactor engineering performed a core evaluation which determined that a reactor trip was not required. Subsequently, the operations crew withdrew the control rod in accordance with licensee procedures.

System engineering and the reactor vessel head replacement team, in conjunction with the head vendor, determined that the most likely cause of the drop was that the control rod drive mechanism contained debris which needed to be flushed out. The licensee performed the appropriate rod exercise to flush the control rod drive mechanism and resumed the power ascension.

The inspectors evaluated the licensee's operational decision-making involved with this non-routine evolution. In addition, the inspectors evaluated the operators' communications during the evolution, and the operators' application and adherence to the operating procedures. This inspection constituted one annual inspection sample.

# b. <u>Findings</u>

No findings of significance were identified.

## .2 Unit 2 Alignment of Control Rod K-7

#### a. Inspection Scope

On July 29, 2005, the inspectors observed the operators align Control Rod K-7. For this control rod, located in control bank D, the individual rod position indication (IRPI) system was reading approximately seven steps below the bank demand position. The licensee found that this rod deviated seven steps during rod motion for startup from the last

Unit 2 refueling outage in July 2005. Even though seven steps was still within the rod alignment limits allowed by TSs, the licensee elected to re-align control rod K-7 to maintain better power distribution control.

The inspectors evaluated the licensee's operational decision-making involved with this non-routine evolution. In addition, the inspectors evaluated the operator's communications during the evolution, and the operator's application and adherence to the operating procedures. This inspection constituted one annual inspection sample.

# b. Findings

No findings of significance were identified.

### 1R15 Operability Evaluations (71111.15)

## a. <u>Inspection Scope</u>

The inspectors reviewed selected operability evaluations (OPRs) associated with issues entered into the licensee's corrective action program. The inspectors reviewed design basis information, the FSAR, TS requirements, and licensee procedures to determine the technical adequacy of the OPRs. In addition, the inspectors determined if compensatory measures were implemented, as required. The inspectors assessed whether system operability was properly justified and that the system remained available, such that no unrecognized increase in risk occurred. The reviews of the following operability evaluations constituted six inspection procedure samples:

- OPR000141; Incorrect Engineered Safety Features Actuation System Setpoint Allowable Values in TS Table 3.3.2-1 (CAP064738);
- OPR000143; Potential to Exceed Design Basis on Safety-Related Battery Chargers During RMP [Routine Maintenance Procedure] 9369-7 & -8 (CAP065213);
- Prompt Operability for Revised Westinghouse Motor Data and the Effect on 1P-15A Safety Injection Pump (CAP065765);
- OPR000146; Revision Need for AOP [Abnormal Operating Procedure] 10, Control Room Inaccessibility (CAP65843);
- OPR000148; Evaluation of Potential for Auxiliary Feedwater Recirculation Line Crimp (CAP066372); and
- OPR000149; OE023369, Part 21 Notification of Failed Coating on Fans May Apply to Point Beach (CAP066447).

## b. <u>Findings</u>

No findings of significance were identified.

### 1R17 Permanent Plant Modifications (71111.17A)

# .1 4160-Volt Safety-Related Bus Relay Setpoint Changes

### a. Inspection Scope

The inspectors reviewed the engineering analyses, design information and modification documentation for the change in relay setpoints associated with the 4.16-kV safety-related busses 1A05, 1A06, 2A05, and 2A06. The inspection activities included, but were not limited to verification and review of the following parameters associated with this modification: safety classification, functional properties, failure mode potentials, and the associated 10 CFR 50.59 screening analysis. Additionally, the inspectors observed portions of the calibration and testing of the relays, reviewed acceptance testing results, and reviewed condition reports associated with the design change to verify that the licensee identified and documented problems at an appropriate threshold. This inspection constituted one annual inspection sample.

### b. Findings

No findings of significance were identified.

## .2 AFW Discharge Valve Position Indication Modification

### a. Inspection Scope

The inspectors reviewed the engineering analyses, design information, and modification documentation for the modification to the AFW discharge valve position indication. The inspection activities included, but were not limited to, verification and review of the following parameters associated with this modification: structural integrity, material compatibility, environmental qualification, safety classification, functional properties, seismic qualification, failure mode potentials, and the associated 10 CFR 50.59 screening analysis. Additionally, the inspectors observed portions of the installation and testing of the modification, reviewed acceptance testing results, and reviewed CAPs associated with the design change to verify that the licensee identified and documented problems at an appropriate threshold. This inspection constituted one annual inspection sample.

# b. Findings

No findings of significance were identified.

# 1R19 Post-Maintenance Testing (71111.19)

## .1 Selected Post-Maintenance Test Reviews

### a. Inspection Scope

During completion of the post-maintenance test inspection procedure 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 were adequately addressed prior to the commencement of the testing;
- Measuring and test equipment calibration was current;
- Test equipment was 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 and 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 entered into the corrective action program.

During this inspection period, the inspectors reviewed the following post-maintenance activities, which constituted two quarterly inspection procedure samples:

- Primary System Tests and Control Rod Bank Testing following the Unit 2 Refueling Outage and Reactor Vessel Head Replacement; and
- Governor Replacement for the EDG G-02.

## b. Findings

No findings of significance were identified.

# 1R20 Refueling and Outage Activities (71111.20)

## a. Inspection Scope

The inspectors observed activities during the first six days of the Unit 1, Cycle 29 refueling outage (U1R29), which began on September 24, 2005. These inspection activities constituted one refueling outage inspection sample.

This inspection consisted of an in-office review of the licensee's outage schedule, safe shutdown plan, and administrative procedures governing the outage, and plant and

control room outage activities. Specifically, the inspectors determined the licensee's ability to effectively manage elements of shutdown risk pertaining to reactivity control, decay heat removal, inventory control, electrical power control, and containment integrity.

The inspectors conducted in-plant observations of the following daily outage activities:

- Attended outage management turnover meetings to determine if the current shutdown risk status was accurate, well understood, and adequately communicated;
- Performed in-plant walkdowns to observe ongoing work activities; and
- Conducted in-office reviews of selected issues that the licensee entered into its
  corrective action program to determine if identified problems were being entered
  into the program with the appropriate characterization and significance.

Additionally, the inspectors performed in-plant observations of the following specific activities:

- Performed Mode 3 walkdowns at the start of the outage to check for active boric acid leak indications:
- Reactor coolant system (RCS) cooldown to determine if cooldown rates were within TS limits;
- Observed portions of the alignment of the RHR system for shutdown cooling;
- Reviewed the proper alignment and operation of the potential-dilution-inprogress alarm.

#### b. Findings

No findings of significance were identified.

# 1R22 Surveillance Testing (71111.22)

#### a. Inspection Scope

During completion of the inspection procedure samples, the inspectors observed inplant activities and reviewed procedures and associated records to determine if:

- Preconditioning occurred;
- Effects of the testing were 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, the 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 frequencies met TS requirements to demonstrate operability and reliability;

- 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 and 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 was accurately incorporated in the test procedure;
- Where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- 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.

During this inspection period, the inspectors observed activities associated with the following surveillance procedures, which constituted two quarterly inspection procedure samples:

- Motor-Driven AFW Pump Local Control Test,
- RMP-9056, 1A-06 Relay Test.

### b. Findings

Introduction: The inspectors identified a Green finding with an associated NCV of TS 5.4.1 for the failure to have an established procedure to trip a loss of voltage time delay relay associated with TS 3.3.4 after the time delay function of the channel failed.

<u>Description</u>: On August 17, 2005, calibration and testing of the bus undervoltage time delay relay 1-62-3/A-06 commenced under WO0409512 and routine maintenance procedure 1RMP 9056-2, "Calibration and Testing of Safety Related Protective Relays A06." The relay was associated with the time delay function of one channel of the 4.16-kV loss-of-voltage function for the loss of off-site power EDG start and load sequence instrumentation, as specified in TS 3.3.4. Technical Specification Action Condition (TSAC) 3.3.4.A specified that, if one or more functions with one channel per bus was inoperable, the affected channel be placed in trip in one hour, if the channel was not restored to service.

The work was performed by a relay technician and was witnessed by a plant quality control inspector. During the test, the relay failed to perform as expected and was retested several times which verified there was not a test equipment problem. After the

technician conclusively determined the relay was failed, operations department personnel were notified. However, no procedure was established to place the affected channel in trip, if the time delay function of the relay failed and the required action of TSAC 3.3.4.A was not met. Consequently, when the one hour completion time expired, operators appropriately entered TSAC 3.3.4.C, which required immediately entering the applicable conditions and required actions for the associated standby power source made inoperable by loss of off-site power diesel generator start instrument. The relay was eventually replaced and TSAC 3.3.4.C was exited.

The licensee completed an apparent cause evaluation of the issue, and the inspectors noted following the review, that the licensee failed to address the fact that no procedure existed to place the channel to trip if the time delay function of the channel failed. The inspectors also noted that TS 5.4.1 required that written procedures were established for specific and foreseen potential malfunctions of systems or components.

The inspectors determined that the failure to have a procedure to place the relay in the tripped condition within one hour was a performance deficiency warranting a significance evaluation.

<u>Analysis</u>: The inspectors concluded that the finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," issued on May 19, 2005, in that, the finding was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding would have become a more significant safety concern.

The inspectors determined that the finding could be evaluated using the significance determination process (SDP) in accordance with IMC 0609, "Significance Determination Process," because the finding was associated with the operability, availability, reliability, or function of a train in the Mitigating System cornerstone. For the Phase 1 screening, the inspectors answered the questions in the Mitigating System column and determined that the finding did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the TS-allowed outage time, and no risk due to external events. Therefore, the finding was of very low safety significance (Green).

<u>Enforcement</u>: Technical Specification 5.4.1 requires, in part, that written procedures be established for specific and foreseen potential malfunctions of systems or components. Contrary to this, as of August 17, 2005, the licensee had not established a procedure for placing relay 1-62-3/A-06 in trip, upon failure of that relay, a specific and foreseen potential component malfunction. Because this violation was of very low safety significance, non-willful, non-repetitive, and documented in the licensee's corrective action program as CAP066440, this violation is being treated as an NCV 05000266/2005010-03; 05000301/2005010-03), consistent with Section VI.A of the NRC Enforcement Policy.

The licensee took immediate corrective actions by replacing the time delay relay and entered the issue into the corrective action program (CAP06703). In addition, at the end of the inspection period, the licensee planned additional evaluations and corrective actions to ensure the issues associated with the failure to have an established procedure for this issue were addressed to ensure the licensee was capable of performing the TSAC within the required time frame.

# **Cornerstone: Emergency Preparedness**

# 1EP2 Alert and Notification System Testing (71114.02)

# a. Inspection Scope

The inspectors discussed with Emergency Preparedness (EP) staff the operation, maintenance, and periodic testing of the Alert and Notification System (ANS) in the Manitowoc County portion of the Point Beach Nuclear Plant's (PBNP) Emergency Planning Zone (EPZ) to determine whether this ANS equipment was adequately maintained by Wisconsin Public Service Company staff, who remained responsible for the maintenance of the PBNP and the Kewaunee Nuclear Power Plant's ANS equipment for these plants' overlapping EPZs. The inspectors also reviewed and discussed the results of periodic ANS tests performed by Manitowoc County officials for the time period from November 2003 to June 2005. The inspectors also reviewed samples of late-2003 through mid-2005 records associated with scheduled and other ANS equipment maintenance activities for the Manitowoc County sirens to verify that adequate corrective actions were taken on identified equipment malfunctions.

These activities completed one inspection sample.

## b. Findings

No findings of significance were identified.

# 1EP3 <u>Emergency Response Organization (ERO) Augmentation Testing</u> (71114.03)

# a. Inspection Scope

The inspectors reviewed and discussed with plant EP staff the procedures and operator aids that included the primary and alternate methods of initiating an ERO activation to augment the onshift ERO and the provisions for maintaining the plant's ERO call-out roster. The inspectors also reviewed reports and a sample of CAPs of unannounced off-hour augmentation tests, which were conducted between late-2003 and mid-2005, to determine the adequacy of the drills' critiques and associated corrective actions. The inspectors also reviewed the EP training records of a sample of 22 ERO personnel, who were assigned to key and support positions, to determine whether they were currently trained for their assigned ERO positions.

These activities completed one inspection sample.

# b. <u>Findings</u>

No findings of significance were identified.

# 1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

### a. Inspection Scope

The inspectors performed screening reviews of the following revisions of the PBNP emergency plan to determine whether these changes may have decreased the effectiveness of the licensee's emergency planning: Section 2, Revision 43; Section 3, Revision 25; Section 4, Revision 40; Appendix B, Revision 22; Appendix K, Revision 2; and Appendix L, Revision 1. The inspectors also performed screening reviews of a sample of 15 letters of agreement with offsite support organizations, which were listed in Revisions 23 and 24 of Appendix D of the Emergency Plan, to determine whether these agreements were current and whether the types of support to be provided were consistent with statements in the Emergency Plan. Screening reviews on emergency plan changes do not constitute an approval of the changes and, as such, the changes are subject to future NRC inspection to ensure that the emergency plan continues to meet NRC regulations.

These activities completed one inspection sample.

# b. <u>Findings</u>

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

# a. <u>Inspection Scope</u>

The inspectors reviewed a sample of Nuclear Oversight (NOS) staff's 2004 and 2005 audits and observation reports of the emergency preparedness program to verify that these independent assessments met the requirements of 10 CFR 50.54(t). In that there were no actual activations of the licensee's emergency plan since the last inspection, the inspectors did not have any opportunities to evaluate the licensee's critique of such events. The inspectors also reviewed critique reports and samples of CAPs associated with the 2004 biennial exercise, as well as various EP drills conducted in 2004 and 2005, to verify that the licensee fulfilled its drill commitments and to evaluate the licensee's efforts to identify, track, and resolve concerns identified during these activities. Additionally, the inspectors reviewed a sample of CAPs related to the facility's EP program and activities to determine whether corrective actions were acceptably completed.

These activities completed one inspection sample.

## b. Findings

No findings of significance were identified.

#### 2. RADIATION SAFETY

**Cornerstone: Occupational Radiation Safety (OS)** 

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

.1 Inspection Planning and Verification of Calibration/Operability of Instrumentation

# a. Inspection Scope

The inspectors reviewed the plant FSAR to identify applicable radiation monitors associated with transient high and very high radiation areas including those used in remote emergency assessment. The inspectors identified the types of portable radiation detection instrumentation used for job coverage of high radiation area work, other temporary area radiation monitors currently used in the plant, continuous air monitors associated with jobs with the potential for workers to receive 50 millirem committed effective dose equivalent, whole body counters, and the types of radiation detection instruments utilized for personnel/equipment release from the radiologically controlled area.

The inspectors verified calibration, operability, and alarm setpoint (if applicable) of the following 15 instruments:

- Unit 1 Containment High Range Monitor (1RE-127);
- Low and High Range Spent Fuel Pool Area Monitors (RE-135 and RE-105);
- Unit 2 Failed Fuel Monitor (2RE-109);
- Technical Support Center Area Radiation Monitor (RE-239);
- Canberra FastScan Whole Body Counting System;
- Eberline Personnel Contamination Monitors (PCM-1B/C and PCM-2);
- NNC Gamma 60 Portal Monitors;
- NE Technologies Small Article Monitors (SAM-9/11);
- Neutron Survey Instrument (ASP-1/NRC Rem-Ball);
- Ion Chamber Survey Meter (RSO-50);
- Electronic Dosimetry (Radose);
- Telepole Meter;
- EC2A Pocket GM Meter (commonly used by Operations personnel); and
- Low Volume Air Sampler.

Additionally, the inspectors reviewed the results of licensee's most recent characterization of the Shepherd calibrator unit which was utilized in the calibration of many of the portable instruments listed above.

The inspectors determined what actions were taken when, during calibration or source checks, an instrument was found significantly out of calibration (greater than 50 percent), determined possible consequences of instrument use since last successful calibration or source check, and determined if the out of calibration result was entered into the corrective action program. The inspectors also reviewed the licensee's

10 CFR Part 61 source term reviews to determine if the licensee was cognizant of the station source term composition, instrument capabilities to detect the source term, and that calibration/check sources used were representative of the station's source term.

These reviews represented three inspection samples.

# b. Findings

No findings of significance were identified.

# .2 Problem Identification and Resolution

# a. Inspection Scope

The inspectors reviewed the licensee's self-assessments and audits, as available, that involved personnel contamination monitor alarms due to personnel internal exposures to verify that identified problems were entered into the corrective action program for resolution. Though there were no licensee identified events in 2004 involving internal exposures greater than 50 millirem committed effective dose equivalent, the inspectors reviewed records for selected internal dose assessments (less than 50 millirem) to determine if the affected personnel were properly monitored utilizing calibrated equipment and if the data were analyzed, and internal exposures were properly assessed in accordance with licensee procedures.

The inspectors reviewed corrective action program reports related to exposure significant radiological incidents that involved radiation monitoring instrument deficiencies since the last inspection in this area. Staff members were interviewed and corrective action documents were reviewed to verify that 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 Non-Cited Violations (NCVs) tracked in the corrective action system; and
- Implementation/consideration of risk significant operational experience feedback.

The inspectors determined if the licensee's self-assessment activities were identifying and addressing repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

These reviews represented three inspection samples.

# b. <u>Findings</u>

No findings of significance were identified.

#### .3 Radiation Protection Technician Instrument Use

### a. Inspection Scope

The inspectors reviewed the calibration expiration and source response check currency on radiation detection instruments staged for use, and observed radiation protection technicians for appropriate instrument selection and self-verification of instrument operability prior to use.

These reviews represented one inspection sample.

# b. Findings

No findings of significance were identified.

# .4 Self-Contained Breathing Apparatus (SCBA) Maintenance and User Training

### a. Inspection Scope

The inspectors reviewed the status and surveillance records of SCBAs staged and ready for use in the plant and evaluated the licensee's capability for refilling and transporting SCBA air bottles to and from the control room, operations support center (OSC), and bottle filling station during emergency conditions. The inspectors determined if control room operators and other emergency response and radiation protection personnel were trained and qualified in the use of SCBAs (including personal bottle change-out). Specifically, the inspectors reviewed current SCBA/respiratory protection qualification matrices for the Operations, Instrument and Control, Maintenance, Chemistry and Radiation Protection Departments, to verify that sufficient numbers of individuals required to respond to the control room and the OSC during emergency conditions (as defined by the station's Emergency Plan and procedures) were qualified to use SCBAs.

As the licensee does not itself conduct maintenance of vital components of SCBA units, the inspectors reviewed licensee and vendor maintenance/surveillance procedures, including those for the low-pressure alarm and pressure-demand air regulator, and the SCBA manufacturer's recommended practices to determine if there were inconsistencies between them. The inspectors also reviewed the vital component maintenance records (for activities conducted by a SCBA manufacturer-trained vendor) over the past several years for three SCBA units currently designated as "ready for service": Ops-18; Ops-8; and Ops-72. The inspectors also ensured that the required, periodic air cylinder hydrostatic testing was documented and up-to-date and that the Department of Transportation required retest air cylinder markings were in place for these three, and additional, staged units.

These reviews represented two inspection samples.

# b. <u>Findings</u>

No findings of significance were identified.

#### 4. OTHER ACTIVITIES

# 4OA1 Performance Indicator (PI) Verification (71151)

**Emergency Preparedness Cornerstone** 

### a. Inspection Scope

<u>Cornerstone: Emergency Preparedness</u>

The inspectors reviewed the licensee's records associated with the three EP performance indicators listed below. The inspectors verified that the licensee accurately reported these indicators in accordance with relevant procedures and Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," endorsed by NRC. Specifically, the inspectors reviewed licensee records associated with PI data reported to the NRC for the period October 2004 through June 2005. Reviewed records included: procedural guidance on assessing opportunities for the three PIs; assessments of PI opportunities during pre-designated Control Room Simulator training sessions, the 2004 biennial exercise, and pre-designated drills; revisions of the roster of personnel assigned to key ERO positions; and results of periodic ANS operability tests. The following PIs were reviewed and constituted three inspection samples:

- ANS,
- ERO Drill Participation, and
- Drill and Exercise Performance.

## Cornerstone: Occupational Radiation Safety

The inspectors sampled the licensee's submittals for the PIs and periods listed below. The inspectors used PI definitions and guidance contained in Revision 2 of NEI 99-02 to verify the accuracy of the PI data. The following PI was reviewed and constituted one inspection sample:

### Occupational Exposure Control Effectiveness

Since no occurrences under this PI were identified by the licensee for the 1<sup>st</sup> quarter 2004 through the 4<sup>th</sup> quarter 2004, the inspectors compared the licensee's data with the corrective action program database and the radiological controlled area exit electronic dosimetry transaction records for these time periods, to verify that there were no unaccounted for occurrences in the PI. Additionally, the inspectors conducted walkdowns of accessible locked high radiation area and very high radiation area entrances to verify the adequacy of controls in place for these areas.

# b. <u>Findings</u>

No findings of significance were identified.

# 4OA2 Identification and Resolution of Problems (71152)

# .1 Routine Resident Inspector Review of Identification and Resolution of Problems

# a. <u>Inspection Scope</u>

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to determine if issues were entered into the licensee's corrective action system at an appropriate threshold, that adequate attention was given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors also reviewed all CAPs written by licensee personnel during the inspection quarter. Minor issues entered into the licensee's corrective action system as a result of inspectors' observations are included in the list of documents in the Attachment to this report.

### b. Findings

No findings of significance were identified.

# .2 Resident Inspector Semi-Annual Trend Review

### a. Inspection Scope

The inspectors performed a semi-annual review of licensee trending activities to determine if emerging adverse trends might indicate the existence of a more significant safety issue not previously identified. The inspectors also determined whether the trends were entered into the licensee's corrective action system at an appropriate threshold, and timely corrective actions were planned or implemented by the licensee. The effectiveness of licensee trending activities was assessed by comparing trends identified by the licensee with those trends identified by the NRC during the daily reviews of CAPs, as discussed in Section 4OA2.1 of this report.

The inspector's review considered the six-month period of January 2005 through June 2005, although some examples expanded beyond those dates when the scope of the trend warranted. The inspectors also reviewed the Department Roll-Up Meeting Reports and Quarterly Department Roll-Up Meeting Summary from January 2005 through June 2005. Finally, the inspectors reviewed the first and second quarter 2005 human performance trend reports. The inspector's review was focused on licensee human performance errors, but also considered the results of daily inspector corrective action program item screening, licensee trending efforts, and licensee human performance results. This inspection effort constituted one semi-annual trending inspection procedure sample.

## b. <u>Findings</u>

No findings of significance were identified.

## .3 Biennial Sample Review in the Licensed Operator Training Program

## a. Inspection Scope

The inspectors reviewed licensee self-assessments and corrective action documents written to document deficiencies identified in the licensed operator training program. The self-assessments and corrective action documents were reviewed to ensure that the full extent of the issues were identified, an appropriate evaluation was performed, the condition report was appropriately prioritized, and that actions were planned or in-progress to resolve the issues.

## b. Findings

No findings of significance were identified.

.4 <u>Follow-up on Confirmatory Action Plan Commitments in Emergency Preparedness</u> (95003)

## a. <u>Inspection Scope</u>

The inspectors reviewed and discussed records associated with the following EP Action Plans' steps that were specified in Confirmatory Action Plan (CAL) 3-04-001, dated April 21, 2004, in order to verify that the licensee adequately completed the associated corrective actions: OP-09-001, Step 15; OP-09-003, Step 13; and OP-09-004, Steps 12 and 13. The inspectors also reviewed and discussed records associated with completed Steps 4, 7, and 13 of Action Plan OP-09-001 that were not specified in the CAL.

## b. Implementation of Action Plan Steps

Steps 4, 7, and 13 of Action Plan OP-09-001 involved the following actions. Steps 4 and 7 encompassed clarifying on-shift ERO positions, as needed, and improving plant practices for assigning, training, and retiring personnel from ERO positions. The inspectors determined that the licensee created four ERO duty teams that rotated being the on-call team on a weekly basis to augment the on-shift ERO in accordance with the emergency plan. In August 2004, senior management issued an adequately detailed summary of expectations for duty team members, which addressed such matters as Fitness-for-Duty and an on-call team member's responsibility for obtaining a qualified substitute if the team member would become unavailable during an on-call week.

Training records reviews and discussions indicated that the licensee expanded the number of personnel assigned to the Instrumentation and Controls (I&C) Leader response position to provide greater assurance that this position would be filled in the emergency plan's 30-minute commitment. The inspectors learned that this roster expansion was accomplished by training I&C technicians to also be I&C Leaders and by assigning pagers to those I&C technicians who resided within about 30 minutes of the

site. Pending installation of upgraded seismic monitoring equipment at the site, the need for a technician to obtain a local readout from seismic instrumentation was adequately addressed by training mechanical and electrical maintenance technicians, who were members of the on-shift ERO, to perform this task.

The inspectors also reviewed Revisions 13 and 14 of EP Maintenance Procedure (EPMP) 3.2, "Offsite Personnel and EP Staff Training," and noted that these revisions included adequate provisions for the EP Manager to coordinate with the EP Advisory Committee (EPAC) on EP and ERO staffing matters and for the EPAC to then make recommendations to the Site Vice-President on proposed changes to the EP staff and/or ERO roster. The inspectors concluded that coordination between the EP Manager and the EPAC on such staffing matters should result in improved understanding and cooperation in accomplishing staffing changes.

Step 13 of Action Plan OP-09-001 involved improving the processes for collecting and evaluating records of PI opportunities. The inspectors reviewed Revisions 2 and 4 of Emergency Planning Guideline (EPG) 1.1, "Emergency Planning Department Performance Indicators," and noted that both revisions included references to the use of computerized spread sheets and additional references to plant procedure NP 5.2.16, titled "NRC Performance Indicators." Revision 4 also included an improved cross reference table of the plant's ERO positions to corresponding key ERO positions listed in the NEI 99-02 document.

Completion of Step 15 of Action Plan OP-09-001 was specified in the CAL and involved generation of Effectiveness Review (EFR) 030493 that summarized how each previous step of this Action Plan addressed the Action Plan's overall problem statement and the relevant causal factors and objectives. Based on detailed reviews of completed actions for Steps 1, 2, 3, 4, 5, 7, 8, 11, 12, and 13, which were completed during this or prior inspections of this Action Plan, the inspectors concluded that EFR030493 acceptably summarized the completed actions to adequately address the Action Plan's problem statement, six causal factors, and six objectives.

Completion of Step 13 of Action Plan OP-09-003 was specified in the CAL and involved generation of EFR Report 030554. Before reviewing this report, the inspectors reviewed Revision 3 to procedure NP 1.8.3, "10 CFR 50.54(q) Review Process," which was the site-specific implementation of a Nulcear Management Company (NMC) fleet-wide procedure on performing these required reviews to determine whether proposed changes to the emergency plan or its supporting procedures might decrease the effectiveness of the licensee's emergency response pre-planning. The inspectors also reviewed a sample of 10 CFR 50.54(q) reviews of changes to the emergency plan, emergency plan implementing procedures (EPIPs), and EPMPs that were performed in 2005 to determine whether licensee staff were adequately implementing Revision 3 of Nuclear Plant Procedure NP 1.8.3. The inspectors concluded that Revision 3 was adequately used in these reviews to document such non-editorial changes as the following: bases and justification of proposed changes; relevant regulatory requirements and licensee commitments; comparisons of existing text versus proposed text; and assessment of whether proposed changes would decrease the effectiveness of emergency response pre-planning.

The inspectors also compared Revisions 6 and 10 of NP 1.8.1, "Emergency Preparedness Procedures and Documents." Revision 10's changes included assigning a greater role to the Plant Onsite Review Committee (PORC) for reviewing and approving proposed changes to the emergency plan and those supporting procedures that could be used during an emergency response.

Based on the aforementioned reviews of procedures NP 1.8.1 and 1.8.3, the sample of 50.54(q) reviews' documentation, and the sample of steps of Action Plan OP-09-003 that were reviewed in prior inspections, the inspectors concluded that EFR030554 acceptably summarized completed corrective actions to adequately address this Action Plan's problem statement, causal factors, and objectives.

Steps 12 and 13 of Action Plan OP-09-004 addressed the implementation of the Emergency Action Level (EAL) scheme change that was approved by NRC Headquarters staff on July 22, 2005. The inspectors concluded that both steps, which were specified in the CAL, had been adequately completed, as summarized in the following paragraphs.

Step 12 addressed tabletop drill and classroom training provided to those key ERO members, whose responsibilities included recommending or making decisions on emergency classification, as well as drill and relatively less detailed classroom training to other ERO groups. Reviews of lesson plans and training records indicated that the classroom training provided to both types of ERO members was adequately detailed and conducted in May and June 2005 while the EAL scheme change submittal was in the final stages of the NRC review process. Review of CAP records and discussion with EP staff indicated that the two ERO members, who were unavailable to participate in a drill, were temporarily removed from the ERO call-out roster until make-up training was completed. Records indicated that ERO members were notified that management made the EAL scheme change effective on July 29, 2005, following completion of the PORC's and other internal reviews of the associated emergency plan and EPIP revisions. The notification message, which was used to announce the EAL scheme change's effective date, included a summary of late changes to the EALs that resulted from NRC staff's reviews of the licensee's responses to the last set of NRC's review questions. Records also indicated that the licensee provided a training session to representatives of state and county emergency response agencies on July 13, 2005.

Review and discussion of the ERO's drill schedule and an example drill scenario indicated that each of the licensee's four teams of Technical Support Center and Emergency Operations Facility responders were scheduled to participate in two drills by the end of September 2005. Relevant EP staff understood that credit for PI opportunities could not be counted if a drill involved use of the new EAL scheme prior to the new scheme's implementation date of July 29, 2005.

Step 13 addressed the incorporation of the NRC-approved EAL scheme change in the licensee's emergency plan and EPIP 1.2 and EPIP 1.2.1. The inspectors reviewed the licensee's responses to both sets of NRC Headquarters staff's requests for additional information on the licensee's EAL scheme change submittal and NRC's Safety Evaluation Report dated July 22, 2005. The inspectors also compared the submittal's drafts of Appendix B of the Emergency Plan and drafts of EPIP 1.2 and EPIP 1.2.1 that

were based on the proposed EAL scheme change versus the PORC-approved revisions of this appendix and both EPIPs. The comparisons included the EAL and Fission Product Matrix summary charts, and the detailed information associated with a sample of 36 EALs. The inspector identified no inconsistencies between the detailed EAL scheme change information that had been submitted to NRC and the detailed information in the July 29, 2005, revisions of the aforementioned Appendix B and both EPIPs.

## 4OA3 Event Follow-up (71153)

.1 (Closed) Unresolved Item (URI) 05000266/2003007-04; 05000301/2003007-04: The PBNP emergency plan and implementing procedures did not include sheltering in the range of offsite protective actions that the licensee would recommend to state and county officials for the public within the plume exposure pathway EPZ following any General Emergency declaration.

## b. Findings

Introduction: This URI documented a potential finding associated with 10 CFR 50.47(b)(10), which requires, in part, that licensee emergency plans include a range of protective actions to be developed for the plume exposure pathway EPZ for the public. This potential finding was categorized as an Unresolved Item (URI) pending further regulatory review of the potential generic aspects of this inspection issue, including a review of past generic NRC communications with the industry regarding offsite Protective Action Recommendations (PARs).

<u>Description</u>: During the EP portion of a supplemental inspection conducted in 2003, inspectors identified that the current revisions of Section 6 of the emergency plan and two relevant EPIPs did not include provisions for developing and communicating an offsite PAR to shelter the public within the plume exposure pathway EPZ. As indicated in Inspection Report (IR) 05000266/2003007; 05000301/2003007, text referring to sheltering as an offsite PAR option was deleted in Revision 33 of Section 6 of the emergency plan. The IR also noted that a statement was added in Revision 35, dated October 1998, of Section 6 of the plan to indicate that only an evacuation PAR would be issued by the licensee to state and county agencies. The inspectors determined that the licensee's deletion of sheltering as an offsite PAR option constituted a decrease in effectiveness of the emergency plan that warranted submittal to the NRC for review and assessment prior to implementation. The licensee entered the inspectors' concern into its corrective action tracking system as CAP034785.

Analysis: The failure to ensure that a range of PARs had been developed to protect the public was a performance deficiency that is more than minor because the issue was associated with a cornerstone attribute and affected the EP cornerstone objective of ensuring the adequate protection of public health and safety. The potential finding involved the failure to ensure that a range of PARs was developed and would be communicated to state and county officials as appropriate for the associated emergency conditions. When processed through the EP Significance Determination Process, the

potential finding was determined to have a greater than very low significance because the issue represented a potential failure of the 10 CFR 50.47(b)(10) function of providing a range of PARs.

As summarized in the following paragraphs, the inspectors concluded that the licensee completed adequate corrective actions in late 2003 and 2004 to revise its emergency plan and relevant EPIPs to add sheltering of the public as an offsite PAR option. The following paragraphs also indicate that those corrective actions have remained in effect and have been refined.

As documented in IR 05000266/2004007; 05000301/2004007, the licensee met with state and county officials in October and November 2003 to discuss revising emergency pre-planning to include sheltering as a PAR option. As a result, the licensee revised Section 6 of its emergency plan and relevant EPIPs, which became effective on November 26, 2003, to adequately include sheltering in the range of offsite PARs. The inspectors reviewed Revisions 47 and 48 of Section 6 of the emergency plan and concluded that the option of sheltering in an offsite PAR remained adequately included in the range of PARs.

The inspectors reviewed Revisions 34 and 35 of EPIP 1.3, "Dose Assessment and Protective Action Recommendations," that became effective on March 4, 2004, and July 29, 2005, respectively. The inspectors concluded that Revision 34 continued to include adequate criteria for considering a sheltering PAR, while Revision 35 included further refinements of the criteria for considering sheltering in an offsite PAR.

The inspectors reviewed a sample of revisions of EPIP 2.1, "Notifications - ERO, State and Counties, and NRC," that became effective between June 2004 and July 2005. This EPIP contained the form that would be filled out and then used to initially notify state and county officials of an emergency declaration. The inspectors concluded that Revision 30 of this EPIP, dated June 18, 2004, had adequate provisions for communicating a PAR including sheltering to offsite officials and that Revision 35, which became effective on July 29, 2005, contained refinements to the notification form to more clearly indicate those portions of the EPZ for which sheltering of the public was the recommended protective action.

<u>Enforcement</u>: Title 10 CFR 50.54(q) requires, in part, that a licensee authorized to possess and operate a nuclear power reactor follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b). A nuclear power reactor licensee may make changes to the plans without NRC approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 10 CFR 50.47(b).

Title 10 CFR 50.47(b) requires that the licensee emergency response plans for nuclear power reactors meet each of 16 planning standards of which Planning Standard 10 states, in part, that a range of protective actions be developed for the plume exposure pathway EPZ for the public and in developing this range of actions, consideration be given to evacuation and sheltering and that guidelines for the choice of protective actions that are consistent with Federal guidance are also developed and put in place. Contrary to this 10 CFR 50.47(b)(10) requirement, the revision of Section 6 of the PBNP

Emergency Plan that was in effect at the time of the 2003 supplemental inspection included a statement that, although the State of Wisconsin and the counties could implement sheltering, PBNP staff will only recommend evacuation as a protective action for the public.

Subsequent to the 2003 supplemental inspection, NRC Headquarters staff assessed the potential generic aspects of this potential finding and prior generic NRC communications with the industry regarding offsite PARs. In Regulatory Issue Summary (RIS) 2004-13, "Consideration of Sheltering in Licensee's Range of Protective Action Recommendations," dated August 2004, NRC affirmed the position that licensees shall develop a range of protective actions that included consideration of sheltering of the public in the plume pathway EPZ. This RIS also indicated that NRC staff's reviews of a sample of licensees' emergency plans and implementing procedures led to a conclusion that the sheltering PAR option was not always consistently implemented in the emergency plan, implementing procedures, and in message forms used when communicating initial emergency information to state and county officials.

Supplement 1 to RIS 2004-13, dated March 10, 2005, indicated that NRC would begin evaluating the use of enforcement action for licensees in noncompliance. Enforcement Guidance Memorandum (EGM) 05-002, dated July 18, 2005, provided guidance on how to disposition existing URI that document a performance deficiency or nonconformance related to sheltering as an offsite PARs option. This EGM indicated that, based on NRC's recognition of the need to clarify the requirements regarding including the consideration of sheltering in the range of offsite protective actions, NRC decided to use discretion and not take enforcement action for this issue for a period extending 90 days following the issuance of Supplement 1 if the licensee had completed adequate corrective actions to update its emergency planning, as needed, to include sheltering in its range of PARs.

The EGM specified that existing URI related to this sheltering issue for which a licensee had taken adequate corrective action prior to June 8, 2005, should be dispositioned as follows: A violation of 10 CFR 50.47(b)(10) was identified. Because the violation was corrected during the discretion period, NRC is exercising enforcement discretion in accordance with Section VII.B.6 of the NRC Enforcement Policy and is, therefore, not issuing any enforcement action for this violation. This URI is closed.

.2 (Closed) Violation 05000266/2003007-05; 05000301/2003007-05: A Severity Level III Violation was identified for the licensee's failure to maintain a standard EAL scheme. Specifically, between October 1998 and December 1999 the licensee made changes without NRC prior approval to eight EALs, which were contained in Appendix B of its emergency plan and in EPIP 1.2, that were determined by NRC in 2003 to have decreased the effectiveness of emergency plan.

As indicated in IR 05000266/2004007; 05000301/2004007 and IR 05000266/2005009; 05000301/2005009, the licensee developed and submitted for NRC Headquarters staff's review a proposed standard EAL scheme based on the NRC-endorsed NEI 99-01, Revision 4, document. On July 22, 2005, NRC Headquarters staff approved this proposed EAL scheme, as documented in an NRC Safety Evaluation Report. As

summarized in Section 4OA2 of this inspection report, the licensee accurately implemented the new NRC-approved EAL scheme on July 29, 2005. This violation is closed.

## 4OA4 Cross-Cutting Aspects of Findings

- .1 A finding described in Section 1R12.1 of this report had, as the primary cause, a problem identification and resolution deficiency, in that, the licensee failed to take adequate corrective actions to address a condition adverse to quality initially identified in 2001.
- .2 A finding described in Section 1R13.2 of this report had, as the primary cause, a human performance deficiency, in that, the licensee personnel failed to validate and verify that the appropriate conditions were established following cancellation of maintenance and the return to service of a diesel generator exhaust fan. As a result, the proper equipment configuration was never restored after maintenance, and EDG G-01 was inoperable when ambient air temperature exceed 80°F from August 1 7, 2005.

## 4OA6 Meetings

## .1 Exit Meeting

On October 6, 2005, the resident inspectors presented the inspection results to Mr. D. Koehl 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 Meetings

Interim exits were conducted for:

- Emergency preparedness inspection with Mr. J. McCarthy on August 12, 2005;
- Biennial Licensed Operator Requalification inspection with Mr. J. McCarthy on September 2, 2005;
- Overall assessments of the annual operating test via telephone with Mr. P. Smith on September 15, 2005;
- Maintenance Effectiveness biennial inspection with Mr. J. Schweitzer on September 16, 2005;
- Occupational Radiation Safety radiological instrumentation and protective equipment program inspection with Mr. M. Lorek on January 7, 2005.

## 4OA7 <u>Licensee-Identified Violations</u>

The following violation of very low significance (Green) was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600, for being dispositioned as an NCV.

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part that activities affecting quality be prescribed by procedures appropriate to the circumstances and should include appropriate acceptance criteria to determine that the important activity has been satisfactorily accomplished. Contrary to this, on July 27, 2005, the required inservice test stroke time testing of valves 2AF-4000 and 2AF-4001 was not performed after the installation on Unit 2 of permanent modification MR 03-011, Revision 1, "Modify Turbine Driven AFW Pump Valve Position Indication." This issue was documented in the licensee's corrective action program as CAP066003. This finding is of very low safety significance because the testing was subsequently performed and the valves met the acceptance criteria.

ATTACHMENT: SUPPLEMENTAL INFORMATION

#### SUPPLEMENTAL INFORMATION

## **KEY POINTS OF CONTACT**

## Licensee

- R. Amundson, Training Supervisor Operations
- A. Capristo, Regulatory Affairs Manager
- G. Casadonte, Fire Protection Coordinator
- B. Cole, Internal Assessment Supervisor
- G. Corell, Chemistry Manager
- R. Davenport, Production Planning Manager
- F. Flentje, Senior Regulatory Compliance Engineer
- S. Forsha, Engineer, Nuclear Oversight
- T. Gemskie, Emergency Preparedness Supervisor
- C. Hill, Assistant Operations Manager
- M. Hovis, Senior Radiological Analyst
- C. Jilek, Maintenance Rule Coordinator
- R. Johnson, Senior Emergency Preparedness Coordinator
- K. Kappelman, Emergency Preparedness Instructor
- T. Kendall, Engineering Senior Technical Advisor
- D. Koehl, Site Vice-President
- B. Kopetsky, Security Coordinator
- R. Ladd, Fire Protection Engineer
- M. Lorek, Plant Manager
- J. McCarthy, Director of Site Operations
- R. Milner, Business Planning Manager
- G. Packard, Operations Manager
- L. Peterson, Design Engineer Manager
- M. Ray, Emergency Planning Manager
- D. Schuelke, Radiation Protection Manager
- J. Schweitzer, Site Engineering Director
- D. Shannon, General Supervisor Radiological Support
- G. Sherwood, Engineering Programs Manager
- C. Sizemore, Training Manager
- P. Smith, Licensed Operator Requalification Training Group Lead

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- W. Smith, Site Assessment Manager
- J. Strharsky, Planning and Scheduling Manager
- N. Stuart, Maintenance Manager

## Nuclear Regulatory Commission

- H. Chernoff, Point Beach Project Manager, NRR
- P. Louden, Chief, Reactor Projects, Branch 5
- M. Satorius, Director, Division of Reactor Projects

# ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>		
05000266/2005010-01; 05000301/2005010-01	NCV	Corrective Action Violation for Untimely Repair of Emergency Diesel Generator Cooling System Endbells With Microbiologically-Induced Corrosion (Section 1R12.1)
05000266/2005010-02; 05000301/2005010-02	NCV	Technical Specification Violation for Inoperable Emergency Diesel Generator Because of Mis-Positioned Room Exhaust Fan Breaker (Section 1R13.2)
05000266/2005010-03; 05000301/2005010-03	NCV	Technical Specification Violation for Lack of a Procedure for Tripping Failed Loss-of-Voltage Relays (Section 1R22)
Closed		
05000266/2005010-01; 05000301/2005010-01	NCV	Corrective Action Violation for Untimely Repair of Emergency Diesel Generator Cooling System Endbells With Microbiologically-Induced Corrosion (Section 1R12.1)
05000266/2005010-02; 05000301/2005010-02	NCV	Technical Specification Violation for Inoperable Emergency Diesel Generator Because of Mis Positioned Room Exhaust Fan Breaker (Section 1R13.2)
05000266/2005010-03; 05000301/2005010-03	NCV	Technical Specification Violation for Lack of a Procedure for Tripping Failed Loss-of-Voltage Relays (Section 1R22)
05000266/2003007-04; 05000301/2003007-04	URI	Emergency Plan and EPIPs Lacked Provisions for Developing and Communicating an Offsite PAR of Sheltering The Population Within The EPZ (Section 4OA3.1)
05000266/2003007-05; 05000301/2003007-05	VIO	Failure to Receive Prior NRC Approval for Changes to a Standard EAL Scheme (Section 4OA3.2)

# Discussed

None.

#### LIST OF DOCUMENTS REVIEWED

## 1R01 Adverse Weather

NMC Policy CP 0072: Summer Readiness; Revision 0

Sited Summer Readiness Report; undated

AOP-13A; Circulating Water System Malfunction; Unit 0; Revision 16

AOP-13C; Severe Weather Conditions; Unit 0; Revision 15

CAP063587; Hot Weather Preparations Not Initiated per NMC Summer Readiness

Policy; dated April 11, 2005

CAP065424; Swing Battery Ventilation Issues; dated June 28, 2005

CAP065818; Outside Air Suction Damper Failed Closed; dated July 19, 2005

CAP065847; Unresolved G-01 Diesel Generator Hot Weather Issue; dated July 20, 2005

CAP066285; HVAC [Heating, Ventilation, and Air Conditioning] Issues Been Major Issue this Cooling Season; August 10, 2005

WO510270; Switchboard Charger Room Condenser Unit; dated August 4, 2005 WO510580; Unit 2 Electrical Equipment Room Ventilation Instrument Rack; dated July 25, 2005

WO500475; C-34 Control Panel Exhaust Fan; dated August 4, 2005

## 1R05 Fire Protection

Fire Hazards Analysis Report (FHAR); Water Treatment Equipment Area;

FHAR FZ 122, Fire Area A01-E; dated August 2005

FHAR; Holdup Tank Pump Room; FHAR FZ 131; Fire Area A01-A; dated August 2005

FHAR; Corridor - North; FHAR FZ 141; Fire Area A01-A; dated August 2005

Corrective Action (CA) 061649; Uncontrolled Material in Plant to Support Recurrent Testing; dated February 21, 2005

CA063386; Uncontrolled Material in Plant to Support Recurrent Testing; dated June 16, 2005

CAP062146; Uncontrolled Material in Plant to support Recurrent Testing; dated February 18, 2005

CAP066809; NRC Resident Identifies Portable Area Rad Monitors on Safety-Related Equipment; dated September 2, 2005

CAP067136; AM-2 Detector Cable Found Attached to Safety-Related Equipment; dated September 21, 2005

#### 1R11 Licensed Operator Qualifications

Point Beach ROP Plant Issue Matrix from 08/22/2001 to 08/22/2004; dated August 22, 2004

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2003004; 05000301/2003004; dated October 29, 2003

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report

05000266/2003009; 05000301/2003009; dated January 30, 2004

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report

05000266/2004002; 05000301/2004002; dated May 6, 2004

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2004003; 05000301/2004003; dated August 12, 2004

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2004006; 05000301/2004006; dated October 20, 2004

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2004012; 05000301/2004012; dated February 4, 2005

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2005003; 05000301/2005003; dated April 27, 2005

Point Beach Nuclear Plant, Units 1 and 2 NRC Integrated Inspection Report 05000266/2005004; 05000301/2005004; dated August 10, 2005

Licensee Event Report LER 301/2003-003-00; Failure to Place Instrument Channel in Trip as Specified by LCO 3.3.1 Required Action D.1; dated April 8, 2003

SA017565, 2005 Point Beach Operations Training Comprehensive Self-Evaluation; dated January 31 - February 4, 2005

Focused Observation Results for January 2005 - Pre-Job Briefings

Operations Training Advisory Committee Meeting Minutes; dated various from April 22, 2004 through June 14, 2005

LOR CRC Meeting Minutes; dated various from January 5, 2005 through June 8, 2005

NP 2.1.1; Conduct of Operations; Revision 1; dated June 4, 2003

OM 1.1; Conduct of Plant Operations PBNP Specific; Revision 20; dated August 22, 2005

U2C28 Core Changes JITT (PB-BR-05-133); dated June 13, 2005

LP # PB-LOR-053-004L; Operability Determinations; Revision 0

TRPR 33.0; Training Program Description; Licensed Operator Requalification Training Program; Revision 23; dated May 19, 2005

Completed TRQM 19.32; Activation of an Inactive SRO License; Two Separate Forms; dated August 31, 2004

OM 3.10; Operations Personnel Assignments and Scheduling; Revision 19; dated January 20, 2005

Completed Point Beach Form (PBF)-2094; NRC License Active Status Tracking; dated various

Completed PBF-6097; Operations Watchstanding Temporary Restriction Form; dated various

Licensed Operator Quarterly Status Report; dated June 30, 2005

TI-8.0; Conduct of Simulator Training and Simulator Evaluation; Revision 10; dated May 17, 2005

TI-9.0; Nuclear Regulatory Commission (NRC) Examination Security Requirements; Revision 4; dated October 29, 2004

CAP051746; Excess Letdown Flow Insufficient to Support Design Function; dated November 11, 2003

CAP053547; Simulator/Control Room Differences Need Evaluated; dated February 4, 2004

CAP058275; Issue for Attention from Ops Training Self-Assessment Concerning Simulator PPCS; dated August 3, 2004

CAP059322; Simulator PPCS Data Trends Froze; dated September 20, 2004

CAP060158; Evaluation Time Lost Due to Simulator PPCS Problems; dated October 27, 2004

CAP060341; Operator Action to Not Overfill Ruptured SG; dated November 4, 2004

CAP061267; Exercise ENS Call Did Not Meet NRC Expectation for "Immediate"; dated January 12, 2005

CAP061473; Missed Performance Indicator (PI) During LOR Training Session; dated January 3, 2005

CAP061567; LOR Cycle One - Missed PI Opportunity; dated January 19, 2005

CAP061744; Opportunities for Improvement Related to Establishing NRC Exam Security; dated January 28, 2005

CAP061819; Missed PI During Operations Training Session; dated February 1, 2005

CAP061871; Simulator ICRR Plot Failed to Respond; dated February 4, 2005

CAP061872; Evaluate Remediation for Individual Failure of EP Opportunity in Simulator; dated February 4, 2005

CAP062014; Deficiencies Identified During Simulator Observations/Debrief; dated February 11 2005

CAP062533; IF1A (Finding) from SA017565, 2005 Point Beach Operations Training CSE; dated March 6, 2005

CAP062534; IFA2 from SA017565, 2005 Point Beach Operations Training CSE; dated March 6, 2005

CAP062535; IFA3 from SA017565, 2005 Point Beach Operations Training CSE; dated March 6, 2005

CAP062536; IFA4 from SA017565, 2005 Point Beach Operations Training CSE; dated March 6, 2005

CAP062542; ENH5 from SA017565, 2005 Point Beach Operations Training CSE; dated March 6, 2005

CAP062961; Potentially Adverse/Declining Performance Trend Regarding Operability Calls; dated March 22, 2005

CAP065722; Simulator PPCS Failure; dated July 14, 2005

CAP065925; Initial License Training (ILT) Exam Integrity; dated July 22, 2005

CAP066327; Potential for Unauthorized Access to 6<sup>th</sup> Floor Simulator Area During Exam Development; dated August 11, 2005

2003/2004 LOR Long Range Training Plan; dated April 30, 2003

2005/2006 LOR Biennial Training Plan; dated April 4, 2005

Cycle 04-01; 04-02; 04-03; 04-05; 05-01; 05-02; 05-03; Operations Continuing Training End of Cycle Report; dated various

2004 NRC Biennial Written Exams; dated various

NMC Training Program Effectiveness Report; Third Quarter 2004

NMC Training Program Effectiveness Report; Fourth Quarter 2004

NMC Training Program Effectiveness Report; First Quarter 2005

NMC Training Program Effectiveness Report; Second Quarter 2005

Learner Learning History (Attendance Report); dated various

Completed QF-1040-04; Remediation Training Forms; dated various

Completed QF-1040-15; Self-Study/Make-Up Training Form; dated Aril 4, 2005

Completed TI 8.0; Attachment 2; Crew Simulator Evaluation Summary; dated various

Completed PBF-6818; Crew Simulator Evaluation Summary; Exam Weeks 1 through 4, 2005; dated various

Completed PBF-6819; Individual Simulator Evaluation Summary; Exam Weeks 1 through 4, 2005; dated various

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FSAR Section 14.2.4, Steam Generator Tube Rupture; dated August 2004

FSAR Section 14.2.5, Rupture of a Steam Pipe; dated August 2004

PB-LOR-000-004E; 2005 LORT Operating Test Scenario; Revision 0

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PB-LOR-000-005E; 2005 LORT Operating Test Scenario; Revision 0
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PB-LOR-000-008E; 2005 LORT Operating Test Scenario; Revision 0

P012.001aCOT; 2005 LORT Operating Test JPM; Revision 0

P004.007COT; 2005 LORT Operating Test JPM; Revision 0

P006.003COT; 2005 LORT Operating Test JPM; Revision 3

P000.039bAOT; 2005 LORT Operating Test JPM; Revision 6

P004.010AOT; 2005 LORT Operating Test JPM; Revision 2

FP-T-SAT-80; Simulator Configuration Management; Revision 0; dated May 13, 2005

Simulator Review Committee Meeting Minutes; dated various from March 18, 2004 through April 26, 2005

SIMGL C1.4; Simulator Modifications and Core Load Changes; Revision 6; dated June 30, 2005

SIMGL C3.3; Simulator Certification Testing; Revision 9; dated June 30, 2005

SIMGL C1.4; Simulator Modifications and Core Load Changes (completed for Unit 1); dated August 24, 2004

CIMOL C1 4. Circulator Madific

SIMGL C1.4; Simulator Modifications and Core Load Changes (completed for Unit 2); dated April 27, 2005

PB-LOR-054-005S; SGTR Timing; Revision 0

OM 4.3.2; EOP/AOP Verification/Validation Process; Revision 10; dated May 12, 2005

Results of SGTR and Classification Timing; LOR Cycle 05-04

ANSI/ANS-3.5-1985; Nuclear Power Plant Simulators for Use in Operator Training; dated October 25, 1985

Regulatory Guide 1.149; Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations; Revision 1; dated April 1987

List of PBNP Simulator SWOs Pending; dated August 29, 2005

List of PBNP Simulator SWOs Closed (within last year); dated August 29, 2005

List of PBNP Simulator SWOs in Testing; dated August 29, 2005

List of PBNP Simulator SWOs Working; dated August 29, 2005

Open SWO's 03-0073; 04-0022; 04-0016; 05-0032; 05-0039; dated various

Simulator Certification Test (SCT) 6.2.1; 100% Steady State Performance Test; dated January 6, 2004

SCT 6.2.2; 75% Steady State Performance Test; dated January 6, 2004

SCT 6.2.3; 28% Steady State Performance Test; dated January 6, 2004

SCT 6.3.1; 100% Power Heat Balance; dated November 24, 2003

SCT 6.3.3; 28% Power Heat Balance; dated November 24, 2003

SCT 6.5.3; Simultaneous Trip of Both Main Feedwater Pumps; dated March 30, 2004

SCT 6.5.3; Simultaneous Closure of All Steam Isolation Valves; dated March 26, 2004

SCT 6.6.1; Normal Power Operations to Low Power Operations; dated September 3, 2004

SCT 6.6.2; Reactor Shutdown; dated June 18, 2005

SCT 6.6.3; Reactor Start-Up; dated May 3, 2005

SCT 6.6.7; Low Power to Normal Power Operation; dated June 29, 2005

SCT 6.8.8.2; Dropped Rod; dated July 28, 2005

SCT 6.8.29.3; Steam Generator Tube Rupture; dated September 3, 2004

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SCT 6.8.29.8; Pressurizer Safety Valve Failure; dated August 18, 2004

SCT 6.8.37.2; Main Steam Line Break Outside Containment; dated August 11, 2004

SCT 6.8.37.3; Steam Generator Safety Valve Failure; dated August 10, 2004

SCT 7.2; Loss of All Feedwater; dated October 22, 2004

ANSI/ANS-3.4-1996; Medical Certification and Monitoring of Personnel Requiring

Operator Licenses for Nuclear Power Plants; dated February 7, 1996

Regulatory Guide 1.134; Medical Evaluation of Licensed Personnel for Nuclear Power Plants; Revision 3; dated March 1998

Eight Licensed Operators' Medical Records; dated various

## 1R12 Maintenance Effectiveness

Pipe); dated July 29, 1992

ACE001869; Service Water Leakage; G02 Emergency Diesel Generator Room; dated April 26, 2005

CA053809; Perform Representative NDE Inspections on All SW Piping in the AFW Room, per CAP051703; dated November 12, 2003

CA062221; Prepare Procedures to Replace Endbells on G-01 Because of Through-wall Leak on HX-55A1 G-01 EDG Heat Exchanger; dated March 25, 2005

CA062736; Service Water Leakage; G-02 Emergency Diesel Generator Room -

Followup on issue, per CAP063969; dated April 25, 2005

CA062909; FAC [Flow Accelerated Corrosion]/MIC Issue With Service Water Piping; dated May 4, 2005

CA063197; Service Water Leakage; Evaluate EPRI TR 1008282 fo MIC in PBNP SW Program; dated May 25, 2005

CA063200; Determine the Condition of the Remaining Alternate EDG G-01 Cooling Supply Line That Was Not Replaced Under WO 0501655. Replace or Repair as Required; dated May 25, 2005

CAP000429; Service Water Piping Degradation; dated February 8, 2001

CAP006894; Service Water Leak Downstream of SW-64; dated November 13, 1996 CAP015009; Through-Wall Pinhole Leak in Auxiliary Feed Pump Room (Service Water

CAP015900; AFW Pump Room Cooler Has Tube Leak; dated January 18, 1996

CAP016416; Undocumented Repair to Service Water Piping; dated August 19, 1996

CAP016590; Service Water Supply Piping Elbow Wall Thinning; dated October 2, 1996

CAP022977; Leak in Service Water Return Piping From CCW Heat Exchanger HX-12D; dated February 26, 1992

CAP022988; Flange On Service Water Return Piping From 1HX-15D and 1W-1D1 Heavily Corroded; dated March 15, 1992

CAP026063; Leak Discovered On Service Water West Header; dated July 16, 1996 CAP051703; Through-Wall Pin-Hole Type Leak in SW Piping to 2P-29 AFW Pump; dated November 10, 2003

CAP056548; JB-1 Pipe Has a Pinhole Leak; dated May 9, 2004

CAP062892; Through-Wall Leak on HX-55A1 G-01 EDG Heat Exchanger; dated March 20, 2005

CAP063969; Service Water Leakage; G-02 Emergency Diesel Generator Room; dated April 22, 2005

CE008621; Significant Wall Thinning Identified on Service Water Tubing; dated February 24, 1997

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CE015467; Conduct Extent of Condition of Through-wall Leak on HX-55A1 G-01 EDG Heat Exchanger, per CAP062892; dated March 23, 2005

MRE000142; Through Wall Pin-Hole Type Leak in SW Piping to 2P-29 AFW Pump; dated November 12, 2003

MRE000361; Through-Wall Leak on HX-55A1 G-01 EDG Heat Exchanger; dated March 23, 2005

MRE000381; Service Water Leakage; G-02 Emergency Diesel Generator Room; dated April 26, 2005

Service Water In-Service Inspection Program; Revision 2; dated June 11, 2004

## 1R12 Maintenance Effectiveness-Biennial Review

NP 7.7.5; Determining, Monitoring and Evaluating Performance Criteria for the Maintenance Rule; Revision 15

NP 7.7.6; Work Order Review and MPFF [Maintenance Preventable Functional Failure] Determination for the Maintenance Rule; Revision 5

NP 7.7.7; Guideline for Maintenance Rule Periodic Report; Revision 2

NPM 2004-0217; 2003 Annual Report for the Maintenance Rule; dated March 31, 2004

NPM 2005-0245; 2004 Annual Report for the Maintenance Rule; dated March 30, 2005

System Health Report - Auxiliary Feedwater; dated September 4, 2005

System Health Report - Condensate and Feedwater System; dated July 4, 2005

System Health Report - Diesel Generator System; dated August 3, 2005

System Health Report - Service Air System; dated July 27, 2005

System Health Report - Vital 120 VAC (Y); dated September 8, 2005

Maintenance Rule (a)(1) System Action Plan Checklist and Approval - Auxiliary Feedwater System; dated September 5, 2003

Maintenance Rule (a)(1) System Action Plan Checklist and Approval - Condensate and Feedwater System; dated February 18, 2004

Maintenance Rule (a)(1) System Action Plan Checklist and Approval - Diesel Generator; dated August 8, 2005, and September 10, 2003

Maintenance Rule (a)(1) System Action Plan Checklist and Approval - Service Air System; dated July 27, 2005, June 21, 2004, and March 29, 2004

Maintenance Rule (a)(1) System Action Plan Checklist and Approval - Vital 120 VAC (Y); dated October 15, 2004, September 13, 2004, and August 25, 2003

Review of Maintenance Rule Performance (Change of Disposition) - Auxiliary Feedwater System; dated January 14, 2004

Review of Maintenance Rule Performance (Change of Disposition) - Condensate and Feedwater System; dated June 23, 2004

Review of Maintenance Rule Performance (Change of Disposition) - Service Air System; dated June 20, 2005, and July 25, 2003

Review of Maintenance Rule Performance (Change of Disposition) - Vital 120 VAC (Y); dated March 23, 2005

CAP034095; Unit 1 Reactor Trip due to 1G06 Rod Drive Motor Gen Voltage Regulator Problem; dated July 15, 2003

CAP052310; Diesel Start Failure; dated December 12, 2003

CAP052608; Loss of Yellow Spare Inverter; dated January 2, 2004

CAP052682; DY-0D Failure Due to Blown Fuse; dated January 7, 2004

\*CAP066954; Evaluation of Goals for Maintenance Rule not Stated in (a)(3) Report; dated September 13, 2005

\*CAP066980; Omissions in the MRLIN Raw Data Database for DG System; dated September 14, 2005

\*CAP066989; Conflicting Guidance for Diesel Failure Evaluation; dated September 14, 2005

\*CAP067014; VNCSR Performance Criteria Need Clarification; dated September 15, 2005

\*CAP067018; Comparison of NP 7.7.7 and Maintenance Rule Reports 2003 and 2004; dated September 15, 2005

MRE000077; G-02 EDG Relay Fails to Reposition When Secured; dated January 14, 2003

MRE000114; Steam Leak on 2P-28A Casing; dated June 5, 2003

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

MRE000244; Unplanned Load Reduction on Unit 1 to Repair 1P-28B; dated June 15, 2004

MRE000253; DYOD Yellow Backup Inverter Failed; dated August 8, 2004

MRE000259; Failure to Complete MREs Following DY-0D Inverter Failures; dated September 8, 2004

MRE000260; Failure to Complete MREs Following DY-0D Inverter Failures; dated September 9, 2004

MRE000268; CSR Chiller, HX-38A Tripped; dated October 1, 2004

MRE000420; PS-3036 K3A&B SA Compressors Auto Start; dated June 29, 2005

#### 1R13 Maintenance Risk Assessment and Emergent Work Evaluation

CAP066106; Inoperable Emergency Diesel Generator Aligned to Safeguards Power Supply; dated August 2, 2005

CAP066106; PBNP Clock Reset Yellow Sheet; dated August 1, 2005

CAP066228; W-12A, G01 EDG Room Exhaust Fan Breaker, 1B52-329H, Found in Off Position; dated August 8, 2005

CAP066228; PBNP Clock Reset Yellow Sheet; dated August 7, 2005

Root Cause Evaluation (RCE) 000287; W-12A, G01 EDG Room Exhaust Fan Breaker, 1B52-329H, Found in Off Position; dated August 9, 2005

ACE001913; Inoperable Emergency Diesel Generator Aligned to Safeguards Power Supply; dated August 4, 2005

Report of Work Week Activity Numbers for G11; Week of July 24, 2005

Work Week Additions/Deletions - Week of July 24, 2005; dated August 3, 2005

Work Week Additions/Deletions - Week of August 7, 2005; dated August 18, 2005

Work Week Additions/Deletions - Week of September 11, 2005; dated September 19, 2005

H06B1 Workweek Actual vs E-1 Baseline Schedule - Week of July 24, 2005; dated August 3, 2005;

H06B1 Workweek Actual vs E-1 Baseline Schedule - Week of August 7, 2005; dated August 18, 2005

H06B1 Workweek Actual vs E-1 Baseline Schedule - Week of September 11, 2005; dated September 19, 2005

<sup>\*</sup>CAP issued during the inspection

#### 1R14 Personnel Performance Related to Non-Routine Plant Evolutions and Events

ACE001903; MHI [Mitsubishi Heavy Industries, Ltd.] Recommendations for RCCA Exercising Not Performed After U2 Head Replacement; dated July 22, 2005

CAP065602; RPI (Rod Position Indication) Linearization as Left Data Aberrant: Control Bank B, Rod H6; dated July 8, 2005

CAP065666; Unit 2 Dropped Rod, Bank D Rod C-7; dated July 11, 2005

CAP065725; Evaluate Dropped Rods F8 on Unit 1 and C7 on Unit 2; dated July 14, 2005

CAP065764; U2 Bank D Control Rod K7 Indicating 7 Steps Low During R27 Power Ascension; dated July 15, 2005

CAP065877; MHI Recommendations for RCCA Exercising Was Not Performed After the U2 Head Replacement; dated July 21, 2005

CAP065899; U-2, Rod K-7 is in the Core by 7 Steps, Questioning Fuel Conditioning; dated July 22, 2005

MHI-NMC-05-P083; Letter from Mitsubishi Heavy Industries, Ltd. To Westinghouse Electric Company: Recommendation for Long-term Storage of RRVCH and CRDMs in Containment; dated June 14, 2005

Mitsubishi Heavy Industries, Ltd.; PB-KCS-043-0004; Control Rod Drive Mechanism - Requirements for CRDM Start-up Testing; Revisions 0-4

RCE000283; Equipment Root Cause Evaluation of Unit 2 C-7 Rod Drop; dated August 11, 2005

RESP 1.2; Rod Control System: Rod Position Verification and Rod Position Indicator Alignment; Revision 9; dated February 11, 2005

RMP 9201; Control and Documentation for Troubleshooting and Repair Activities [for C7 investigation]; dated July 11, 2005

Troubleshooting Process FP-E-TS-01, Attachment 1, Troubleshooting Log:

WO0510515, CRDM [Control Rod Drive Mechanism] C7 Coils; dated July 11, 2005

NSP-05-25 WEP-05-20; Letter from Westinghouse Electric Company to Nuclear

Management Company, LLC: Control Rod Testing Recommendations for Replacement Reactor Vessel Closure Head; dated January 27, 2005

#### 1R15 Operability Evaluations

OPR000141; Incorrect Engineered Safety Features Actuation System Setpoint Allowable Values in TS Table 3.3.2-1 (CAP064738)

OPR000143; Potential to Exceed Design Basis on Safety-Related Battery Chargers During RMP 9369-7 & -8 (CAP065213)

Prompt Operability for Revised Westinghouse Motor Data and the Affect on 1P-15A Safety Injection Pump (CAP065765)

OPR000146; Revision Need for AOP 10, Control Room Inaccessibility (CAP65843); OPR000148; Evaluation of Potential for Auxiliary Feedwater Recirculation Line Crimp

(CAP066372)

OPR000149; OE023369, Part 21 Notification of Failed Coating on Fans, May Apply to Point Beach (CAP066447)

## 1R17 Permanent Plant Modifications

CAP066003; Required Testing for 2AF-4000 and 2AF-4001 Not Performed After Install; dated July 27, 2005

Modification Number 03-011; Modify Turbine Driven AFW Pump Discharge Valve Position Indication; Revision 1

IT09A; Cold Start of Turbine-Driven Auxiliary Feed Pump and Valve Test (Quarterly) Unit 2; Revision 38; dated July 27, 2005

SCR 2005-0003-01; MR 03-011 and MR 03-012 Modify Turbine Driven AFW Pump Discharge Valve Position Indication, Units 1 & 2; 10 CFR 50.59/72.48 Screening

## 1R19 Post-Maintenance Testing

RESP 3.1; Primary System Tests; Revision 22; dated July 1, 2005 CAP066423; PBTP 136, G-02 EDG Governor Test Procedure; dated August 17, 2005 PBTP [Point Beach Test Procedure] 136; EDG G-02 Governor Testing; Revisions 0 and 1 PBTP 135; EDG G-02 135; EDG G-02 Baseline Data Collection; dated August 15, 2005

## 1R22 Surveillance Testing

0-PT-AF-003 [Periodic Test-Auxiliary Feedwater]; Test of Motor-Driven Auxiliary Feedwater Pumps Local Control Switches; dated September 15, 2005 WO0409512; Calibrate 1A-06 Tech Spec Relays Per 1RMP 9056-2; dated August 23, 2005

WO0511257; Relay Failed to Trip During 1RMP 9056-2; dated August 17, 2005 1RMP 9056-2; Calibration and Testing of Safety Related Protective Relays A-06; dated April 13, 2005

WO0511516; Perform Degraded Voltage and Time Delay Setpoint Adjustments on 1A-05 for Bolted Fault Preliminary Calculation Event Response; dated September 17, 2005 WO0511517; Perform Degraded Voltage and Time Delay Setpoint Adjustments on 1A-06 for Bolted Fault Preliminary Calculation Event Response; dated September 17, 2005 WO0511518; Perform Degraded Voltage and Time Delay Setpoint Adjustments on 2A-05 for Bolted Fault Preliminary Calculation Event Response; dated September 17, 2005 WO0511519; Perform Degraded Voltage and Time Delay Setpoint Adjustments on 2A-06 for Bolted Fault Preliminary Calculation Event Response; dated September 17, 2005 CAP066440; Failure of Degraded Voltage Relay to Trip During 1RMP-9056-2; dated August 17, 2005

CAP066441; 1A-06 Undervoltage Time Delay Relay 62-3 Failed Surveillance Test; dated August 17, 2005

CAP067603; TS 3.3.4.A – Placing Channel in Trip; dated October 5, 2005 ACE001923; Failure of Degraded Voltage Relay to Trip During 1RMP-9056-2; dated August 22, 2005

# 1EP2 Alert and Notification System (ANS) Testing

2004 Annual ANS Maintenance Records; Manitowoc County Sirens P001 - P015; dated October 6 - 26, 2004

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Alert and Notification System Design Report; dated circa 1985

Alert and Notification System Design Report Review; dated December 3, 2003 EPMP 6.0; Alert and Notification System; Revision 4; dated February 11, 2005 CAP057432/ACE 001756; Inadvertent Activation of Manitowoc County Emergency Sirens; dated June 16 and July 16, 2004

CAP058924; Full Alert Siren Test Missed; dated September 1, 2004

CAP060821; Alternating Current Disconnect is Not Appropriately Located on Pole of Siren 13; dated December 1, 2004

CAP061333; Siren 13 Out-of-Service; dated January 5, 2005

## 1EP3 Emergency Response Organization Augmentation

Emergency Plan; Section 5.0; Organizational Control of Emergencies; Revision 48 EPIP 2.1; Notifications - ERO, State and Counties, and NRC; Section 5.2; Revision 34 EPMP 7.0; Emergency Response Organization Notification System; Revision 3 EP-TP; Point Beach Emergency Preparedness Training Program Description; Revision 1

EP Training/Drill Teams Roster; dated August 11, 2005

Point Beach Emergency Response Organization Call List; Revision 17; dated December 3, 2004

Point Beach Emergency Response Organization Call List; Revision 18; dated March 24, 2005

Memorandum - ERO Staff Augmentation Drill November 18, 2004; dated December 29, 2004

Memorandum - March 24, 2005 EP Shift Augmentation Drill - Pager Drill; dated April 5, 2005

Random Sample of ERO Qualification Documents for 22 Key and Support ERO Responders; dated through August 11, 2005

CAP063349; Completion of Field Team Leader Paperwork; dated April 5, 2005

CAP064104; Qualified I&C Leader on Dialogics Callout But Not on Emergency Telephone Directory; dated April 27, 2005

CAP064862; Augmentation Drill Criteria Not Included in Procedure; dated May 31, 2005 CAP064863; Review of ACE003546 for Applicability to PBNP; dated May 31, 2005

#### 1EP4 Emergency Action Level and Emergency Plan Changes

Emergency Plan; Section 2; Revision 43; dated July 29, 2005

Emergency Plan; Section 3; Revision 25; dated July 29, 2005

Emergency Plan; Section 4; Revision 40; dated July 29, 2005

Emergency Plan; Appendix B; Revision 22; dated July 29, 2005

Emergency Plan; Appendix D; Revision 23; dated March 4, 2004

Emergency Plan; Appendix D; Revision 24; dated May 21, 2004

Emergency Plan; Appendix K; Revision 2; dated July 29, 2005

Emergency Plan; Appendix L; Revision 1; dated June 22, 2005

Sample of 15 Current Letters of Agreement with Offsite Support Organizations

## 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

NOS Observation Report 2004-003-3-012; Emergency Planning Drill on August 4, 2004; dated August 19, 2004

NOS Observation Report 2004-004-3-007; Annual Emergency Plan 50.54(t) Assessment Revision 2; dated January 28, 2005

Internal Correspondence; PBNP October 19, 2004, Pre-Exercise Drill Report; dated November 1, 2004

Internal Correspondence; PBNP November 17, 2004, Medical Drill Report; dated January 11, 2005

Internal Correspondence; December 7, 2004, PBNP Evaluated Exercise Report Internal Correspondence; Post-Accident Sampling System Liquid Chemistry Drill on February 10, 2005; dated June 27, 2005

PBNP First Quarter 2005 EP Drill Report; dated March 17, 2005

Internal Correspondence; Radiological Environmental Monitoring Drill on June 15, 2005; dated June 30, 2005

Request for Training 060473; Schedule Coaching Sessions and Practice Sessions for Offsite Dose Projection Software

EP Department Roll-Up Meeting Reports; dated November 9, and December 13, 2004, and January 6, 1st Quarter, and 2nd Quarter 2005

CAP060992/CA060836; Improvements Needed in NRC Communications/Bridge Interface; dated December 9, 2004

CAP060035; Offsite Dose Projection Error During October 2004 Pre-Exercise Drill CAP060039; Wind Shift Information not Shared Within Emergency Operations Facility During October 2004 Drill

## 20S3 Radiation Monitoring Instrumentation and Protective Equipment

Calibration of the Canberra FastScan WBC System at the Point Beach Nuclear Plant; dated February 25, 2004

CAP031004; Mechanic-Electrician SCBA Qualifications Expired; dated February 5, 2003 CAP052651; Periodic Review of the PBNP Contamination Radionuclide Mix is Needed; dated January 6, 2004

CAP054002; Evaluate Portal Monitor Count Time Optimization to Increase Detection Abilities; dated February 19, 2004

CAP055950; RMS System (sic) Server Fail Low Alarms; dated April 22, 2004 CAP056862; RO-2/Telepole Dose Rate Discrepancy Incidence; dated May 20, 2004 CAP057573; 20 Mechanic-Electricians Lost Respirator Qualifications; dated June 24, 2004

CAP061340; FSAR Section 11.8.1 & 11.8.2 Descriptions of Radioactive Material Safety Program; dated January 6, 2005 [NRC-Identified Issue]

Health Physics Calibration Procedure (HPCAL) 1.1; Portable Survey Instrument Calibration, Repair and Response Checks; Revision 17

HPCAL 1.27; Calibration of the Bicron RSO-50 Ion Chamber (and Calibration Data Sheet for Instrument S/N 7862); dated September 20, 2004

HPCAL 1.33; Maintenance and Calibration of Low Volume Air Samplers (and Calibration Data Sheets for Instrument S/Ns HPLVS-40, HPLVS-30, and HPLVS-29); dated March 18, 2004

HPCAL 1.38; Calibration of the Portable Neutron Survey Instrument Analog Smart Portable (ASP-1) (and Report of Calibration by Thermo Electron RM&P); dated November 29, 2004

HPCAL 1.39; Calibration of the Ludlum 2401-EC2A Pocket Survey Meter (and Calibration Data Sheet for Instrument S/N 3452); dated July 12, 2004

HPCAL 1.45; Calibration of MGP Telepole (and Calibration Data Sheet for Instrument S/N A098); dated September 1, 2004

HPCAL 2.8; Eberline PCM-1B Personnel Contamination Monitor Calibration Procedure (Instrument S/N 7739); dated May 8, 2004

HPCAL 2.11.1; Calibration of the Gamma-60 Portal Monitor (Instrument S/N 9485); dated March 15, 2004

HPCAL 2.15; Small Articles Monitor Type SAM-9/11 Calibration and Efficiency (Instrument S/N 0005); dated February 20, 2004

HPCAL 3.2; Area Monitor Calibration Procedure DA1-1 and DA1-6 Detector Assemblies (Instrument RE-105); dated January 15, 2004

HPCAL 3.2; Area Monitor Calibration Procedure DA1-1 and DA1-6 Detector Assemblies (Instrument 2RE-109); dated January 15, 2004

HPCAL 3.3; Area Monitor Calibration Procedure DA1-4 and DA1-5 Detector Assemblies (Instrument RE-135); dated May 26, 2004

HPCAL 3.11; Containment High Range Detector Response Check (Instrument 1RE-127); dated May 29, 2004

HPCAL 3.15; Radiation Monitoring System II (RMS-11) Area Monitor Calibration (Instrument RE-239); dated December 15, 2004

HPIP 4.51.4; Scott Self-Contained Breathing Apparatus; Revision 8

HPIP 4.53; Cleaning, Sanitizing, and Survey Requirements of Respiratory Equipment; Revision 18

HPTI-1 (J. L. Shepherd Model 89 Calibrator) Verification and Validation; dated July 21, 2004

ISC-04-LPSCR; SCBA Operation (NMC Training Lesson Plan); Revision 0

PBF-4006; Monthly RMS Test (System Health Report); dated December 15, 2004

PC 75 Part 1; Monthly and Turnaround Maintenance for the Scott 4.5 Self-Contained Breathing Apparatus; Revision 15

Report Number 5791; Radcal Corporation Report on Calibration for Model 2025AC Radiation Monitor, S/N: 0071 (HPTI-030); dated August 17, 2004

SCBA and Respiratory Protection Qualification Matrix (Maintained by RP Dosimetry); dated January 4, 2005

Functional Testing Worksheet for Scott Air-Pak Pressure Reducer (by Vallen Safety, for SCBA No. Ops-8); dated March 20, 2001 and March 11, 2003

Functional Testing Worksheet for Scott Air-Pak Pressure Reducer (by Vallen Safety, for SCBA No. Ops-18); dated March 20, 2001 and March 11, 2003

Functional Testing Worksheet for Scott Air-Pak Pressure Reducer (by Vallen Safety, for SCBA No. Ops-72); dated March 20, 2001 and March 11, 2003

Snap Shot Self-Assessment Report - RP Instrumentation/Performance Indicators for Occupational Exposure Control Effectiveness; dated January 3, 2005

Teledyne Brown Engineering - Report of Analysis/Certificate of Conformance

(10 CFR Part 61 Waste Stream Analyses); dated June 24, 2002 and March 25, 2004

## 4OA1 Performance Indicator (PI) Verification

Emergency Planning Guideline 1.1; Emergency Planning Department Performance Indicators: Revision 4

Records of Key ERO Members' Drill and Exercise Participation; dated October 2004 through June 2005

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Records of PI Opportunities for the DEP Indicator; dated October 2004 through June 2005

2004 Emergency Preparedness Callups - Monthly ANS Testing (Siren Full Run Test and Growl Test); dated July 2004 through December 2004

2005 Emergency Preparedness Callups - Monthly ANS Testing (Siren Full Run Test and Growl Test); dated January 2005 through June 2005

ACE001840; Missed PI Opportunity - Inaccurate Unusual Event Notification Form; dated February 24, 2005

CAP055371/ACE001667; Open Access to Locked High Radiation Area; dated April 6, 2004

CAP056303/CE013962; Locked High Radiation Area Entry on Wrong RWP; dated May 1, 2004

CAP059670; Worker Exceeded Authorized Neutron Dose Allowable; dated October 4, 2004

Nuclear Plant Memorandum (NPM) 2004-0082; NRC Occupational Exposure Performance Indicator Data for January 2004; dated February 4, 2004

NPM 2004-0146; NRC Occupational Exposure Performance Indicator Data for February 2004; dated March 2, 2004

NPM 2004-0222; NRC Occupational Exposure Performance Indicator Data for March 2004; dated April 2, 2004

NPM 2004-0297; NRC Occupational Exposure Performance Indicator Data for April 2004; dated May 6, 2004

NPM 2004-0356; NRC Occupational Exposure Performance Indicator Data for May 2004; dated June 3, 2004

NPM 2004-0429; NRC Occupational Exposure Performance Indicator Data for June 2004; dated July 8, 2004

NPM 2004-0495; NRC Occupational Exposure Performance Indicator Data for July 2004; dated August 2, 2004

NPM 2004-0602; NRC Occupational Exposure Performance Indicator Data for August 2004; dated September 8, 2004

NPM 2004-0708; NRC Occupational Exposure Performance Indicator Data for September 2004; dated October 6, 2004

NPM 2004-0780; NRC Occupational Exposure Performance Indicator Data for October 2004; dated November 8, 2004

NPM 2004-0843; NRC Occupational Exposure Performance Indicator Data for November 2004; dated December 1, 2004

NPM 2005-0008; NRC Occupational Exposure Performance Indicator Data for December 2004; dated January 4, 2005

## 4OA2 Identification and Resolution of Problems

EFR030493; Improve EP Infrastructure - Processes, Programs, and Technology;

Revision 1; dated April 27, 2005

2004 Schedule of On-call Duty Teams

Internal Correspondence; Site Expectations for Performance of Station Duty Team Members; dated August 26, 2004

CA030461; ERO Minimum Staffing - I&C Leader Position

EPMP 3.2; Offsite Personnel and Emergency Preparedness Staff Training; Revisions 13 and 14

First Quarter 2005 Training Records for I&C Leader Position

Lesson Plan Summaries for I&C Technician and I&C Leader Positions

EPG 1.1; Emergency Planning Department Performance Indicators; Revisions 2 and 4 Procedure NP 5.2.16; NRC Performance Indicators; Revision 9; dated March 31, 2004 First Quarter 2005 Training Records for Mechanical Maintenance and Electrical Maintenance Technicians on Seismic Monitor Data Gathering

EPMP 1.3; Routine Inventory of Emergency Response Facilities' Supplies; Revision 18

EPMP 6.0; Alert and Notification System; Revision 4; dated February 11, 2005

EPMP 5.0; Post-TMI Meteorological Monitoring Program Design, Operation, and Maintenance; Revision 9; dated February 22, 2005

EPIP 1.3; Dose Assessment and Protective Action Recommendations; Revision 35; dated July 29, 2005

EPIP 4.1; Technical Support Center Activation and Evacuation; Revision 37; dated June 10, 2005

Procedure NP 1.8.1; Emergency Preparedness Procedures and Documents; Revisions 6 and 10

Procedure NP 1.8.3; 10 CFR 50.54(q) Review Process; Revision 3; dated July 21, 2004 10 CFR 50.54(g) Review 2005-002; EPMP 1.3; Revision 18; dated February 7, 2005

10 CFR 50.54(g) Review 2005-007; EPMP 6.0; Revision 4; dated February 7, 2005

10 CFR 50.54(g) Review 2005-018; EPMP 5.0; Revision 9; dated February 25, 2005

10 CFR 50.54(q) Review 2005-036; Emergency Plan; Appendix B; Revision 22; dated June 1, 2005

10 CFR 50.54(q) Review 2005-040; Emergency Plan; Section 2; Revision 43; dated April 26, 2005

10 CFR 50.54(q) Review 2005-044; EPIP 1.3; Revision 35; dated May 17, 2005

10 CFR 50.54(q) Review 2005-049; EPIP 4.1; Revision 37; dated June 2, 2005

10 CFR 50.54(q) Review 2005-054; Emergency Plan; Appendix L; Revision 1; dated June 2, 2005

10 CFR 50.54(q) Review 2005-067; Emergency Plan; Section 3; Revision 25; dated June 23, 2005

10 CFR 50.54(q) Review 2005-068; Emergency Plan; Appendix K; Revision 2; dated June 23, 2005

Internal Correspondence; Sustainability Statement for OP-09-003, Step 13; dated January 31, 2005

EFR030554; Revise Emergency Plan and Supporting Procedures; Revision 1; dated April 25, 2005

2005 Emergency Preparedness Drill, Exercise, ERO Training Schedule; Revision 5, dated June 27, 2005

Lesson Plan PB-BEP-051-001L; Emergency Action Levels; Revision 0

Student Handout for Lesson Plan PB-BEP-051-001L

Lesson Plan PB-BEP-051-002L; Emergency Action Levels for Operations; Revision 0 Student handout for Lesson Plan PB-BEP-051-002L

Attendance Sheets for Three Classroom Training Sessions on New EAL Scheme in June 2005 for EAL Decision Makers

Attendance Sheets for Five Classroom Training Sessions in May and June 2005 on New EAL Scheme for Other ERO Members

Attendance Sheets for Five Classroom Training Sessions in May and June 2005 on New EAL Scheme for Operations Personnel

Scenario Use in June 2005 "EAL Turnover" Tabletop Drills

Attendance Sheets for June 2005 "EAL Turnover" Tabletop Drills

CE015852; Two ERO Members Did Not Attend Tabletop Drill When Scheduled

CA063518; Make-up Training Provided to Plant Status Monitor in July 2005

CA065322; Make-up Training Provided to Emergency Operations Facility Manager in July 2005

Copy of "Required Reading" Email Announcing EAL Scheme Change Effective Date and Summarizing Changes Resulting from Responses to Second Set of NRC Requests for Additional Information; dated July 26, 2005

Student Handout and Attendance Sheet for EAL Scheme Change Training Provided to Nine State and County Officials on July 13, 2005

Letter to NRC; Proposed Emergency Plan Changes Related to Point Beach Nuclear Plant Emergency Action Levels Upgrade to NEI 99-01; Revision 4; and Response to Request for Additional Information; dated April 30, 2005

Letter to NRC; Proposed Emergency Plan Changes Related to Point Beach Nuclear Plant Emergency Action Levels Upgrade to NEI 99-01; Revision 4; and Response to Second Request for Additional Information; June 3, 2005

Letter to Site Vice President; Point Beach Nuclear Plant, Units 1 and 2 - Issuance of Approval of the Upgraded Emergency Action Level Plans Based on Revision 4 to Nuclear Energy Institute 99-01; dated July 22, 2009.

Emergency Plan; Appendix B; Emergency Classification; Draft Revision 22

EPIP 1.2; Emergency Classification; Draft Revision 45

EPIP 1.2.1; Emergency Action Level Technical Basis; Draft Revision 0

Emergency Plan; Appendix B; Emergency Classification; Revision 22, dated July 29, 2005

EPIP 1.2; Emergency Classification; Revision 45; dated July 29, 2005

EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 0; dated July 29, 2005

#### 4OA3 Event Follow-up

Emergency Plan; Section 6; Emergency Measures; Revisions 47 and 48; dated November 26, 2003, and March 4, 2004, respectively

EPIP 1.3; Dose Assessment and Protective Action Recommendations; Revisions 34 and 35; dated March 4, 2004, and July 29, 2005, respectively.

EPIP 2.1; Notifications - ERO, State, Counties, and NRC; Revisions 30, 33, and 34; dated June 18, 2004, February 18, 2005, and July 29, 2005, respectively Emergency Plan; Appendix B; Emergency Classification; Revision 22, dated July 29, 2005

EPIP 1.2; Emergency Classification; Revision 45; dated July 29, 2005

EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 0; dated July 29, 2005

## LIST OF ACRONYMS USED

ACE Apparent Cause Evaluation

ADAMS Agencywide Documents Access and Management System

AFW Auxiliary Feedwater

ANS Alert and Notification System

ANSI/ANS American National Standard Institute/American Nuclear Society

AOP Abnormal Operating Procedure

CA Corrective Action

CAL Confirmatory Action Letter

CAP Corrective Action Program Document

CCW Component Cooling Water

CE Condition Evaluation

CFR Code of Federal Regulations
CRC Curriculum Review Committee
DBD Design Basis Document
°F Degrees Fahrenheit
DRS Division of Reactor Safety
EAL Emergency Action Level
EFR Effectiveness Review

EDG Emergency Diesel Generator

EGM Enforcement Guidance Memorandum EOP Emergency Operating Procedure

EP Emergency Preparedness

EPAC Emergency Planning Advisory Committee

EPG Emergency Planning Guideline

EPIP Emergency Plan Implementing Procedure

EPMP Emergency Preparedness Maintenance Procedure

EPZ Emergency Planning Zone

ERO Emergency Response Organization

FHAR Fire Hazards Analysis Report FSAR Final Safety Analysis Report

HPCAL Health Physics Calibration Procedure

I&C Instrumentation and ControlsIMC Inspection Manual ChapterIP Inspection Procedure

IR Inspection Report

IRPI Individual Rod Position Indication

JPM Job Performance Measure

kV Kilo-Volt

LER Licensee Event Report

LORT Licensed Operator Requalification Training

LP Lesson Plan

MHI Mitsubishi Heavy Industries, Ltd.
MIC Microbiologically-Induced Corrosion

NCV Non-Cited Violation
NEI Nuclear Energy Institute

NMC Nuclear Management Company

NOS **Nuclear Oversight** 

**Nuclear Plant Procedures Manual** NP NPM **Nuclear Plant Memorandum NRC** Nuclear Regulatory Commission

NUREG Nuclear Regulatory Guide

Other Activities OA

OPR Operability Evaluation OSC **Operations Support Center** 

PAR Protective Action Recommendation Publicly Available Records System PARS

PBNP Point Beach Nuclear Plant Ы Performance Indicator PIM Plant Issue Matrix

PORC Plant Onsite Review Committee

RCS Reactor Coolant System RHR Residual Heat Removal RIS Regulatory Issue Summary Routine Maintenance Procedure RMP

RWP Radiation Work Permit SCT Simulator Certification Test

SCBA Self Contained Breathing Apparatus SDP Significance Determination Process

Steam Generator SG

Steam Generator Tube Rupture SGTR SRC Simulator Review Committee SRO Senior Reactor Operator

SSC Structures, Systems, and Components

SW Service Water

SWO Simulator Work Order **Technical Specification** TS

**Technical Specification Action Condition TSAC** 

URI Unresolved Item

VIO Violation Work Order WO

> 19 Attachment