

January 18, 2007

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 PROBLEM  
IDENTIFICATION AND RESOLUTION INSPECTION REPORT  
NO. 05000266/2006015 AND 05000301/2006015

Dear Mr. Koehl:

On December 15, 2006, the U.S. Nuclear Regulatory Commission (NRC) completed a baseline team inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the inspection findings, which were discussed on December 15 with you and members of your staff.

The inspection examined activities conducted under your license as they relate to the identification and resolution of problems, and your compliance with the Commission's rules and regulations, and with the conditions of your operating licenses. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the samples selected for review, the inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. The inspectors identified three findings of very low safety significance (Green) during this inspection. One finding pertained to the untimely completion of three root cause evaluations, one finding pertained to the failure to evaluate the extent of boric acid corrosion on valves, and one finding pertained to an inadequate procedure for service water pipe inspections. This last finding also involved a violation of NRC requirements. However, because the violation was of very low safety significance and because the issue was entered into your corrective action program, the NRC is treating this violation as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy.

If you contest the subject or severity of a Non-Cited Violation in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission -

Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Point Beach Nuclear Plant facility.

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

Sincerely,

**/RA/**

Patrick L. Loudon, Chief  
Branch 5  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000266/2006015; 05000301/2006015  
w/Attachment: Supplemental Information

cc w/encl: F. Kuester, President and Chief  
Executive Officer, We Generation  
D. Cooper, Senior Vice President, Group Operations  
J. McCarthy, Site Director of Operations  
D. Weaver, Nuclear Asset Manager  
Plant Manager  
Regulatory Affairs Manager  
Training Manager  
Site Assessment Manager  
Site Engineering Director  
Emergency Planning Manager  
J. Rogoff, Vice President, Counsel & Secretary  
K. Duveneck, Town Chairman  
Town of Two Creeks  
Chairperson  
Public Service Commission of Wisconsin  
J. Kitsembel, Electric Division  
Public Service Commission of Wisconsin  
State Liaison Officer

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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: 05000266/2006015; 05000301/2006015

Licensee: Nuclear Management Company, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: Two Rivers, WI 54241

Dates: November 27 through December 15, 2006

Inspectors: M. Kunowski (Team Leader)  
G. Gibbs, Resident Inspector, Point Beach  
J. Jandovitz, Reactor Inspector  
J. Cai, Human Factors Analyst, Office of Nuclear  
Reactor Regulation

Approved by: P. Loudon, Chief  
Branch 5  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000266/2006015, 05000301/2006015; Nuclear Management Company; on 11/27/2006 - 12/15/2006; Point Beach Nuclear Plant, Units 1 & 2; biennial baseline inspection of the identification and resolution of problems. Three findings in the area of prioritization and evaluation of problems were identified. One of the findings was also a Non-Cited Violation (NCV).

This report covered a 2-week, expanded-size baseline inspection of problem identification and resolution (PI&R) (Inspection Procedure 71152). The inspection was conducted by four inspectors: two Region III regional specialists, the Point Beach resident inspector, and a human factors analyst from the NRC Office of Nuclear Reactor Regulation. Three Green findings, one of which was also an NCV of NRC requirements, were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### Identification and Resolution of Problems

The team concluded that the licensee's program for the identification and resolutions of problems was functioning appropriately and had improved since the previous NRC PI&R expanded team inspection conducted in late 2005. The licensee was identifying plant problems at an appropriately low level, although, the inspectors noted that the threshold for entering wall thinning issues into the program was high relative to the level at which other issues were entered. The inspectors identified three findings in the area of prioritization and evaluation of issues: one for an inadequate procedure for inspection of service water pipe, one for an inadequate extent-of-condition review for boric acid corrosion on valves; and one for untimely completion of three root cause evaluations. In the area of effectiveness of corrective actions, the inspectors concluded that a licensee-developed training course on engineer rigor was well developed and implemented and that corrective actions for three previous issues may need additional management attention to ensure timely completion. The licensee's use of operating experience and self-assessments and audits was found to be appropriate. From interviews conducted during this inspection, the inspectors concluded that workers at Point Beach felt free to input nuclear safety findings into the corrective action program.

### **A. Inspector-Identified and Self-Revealed Findings**

#### **Cornerstone: Mitigating Systems**

- Green. The inspectors identified a finding of very low safety significance involving areas of service water piping where microbiologically induced corrosion was identified but the wall thicknesses of the pipe in those areas were not measured. An NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was associated with this finding for failure to prescribe directions to ensure all areas of degradation identified were characterized. The licensee performed radiographic

examination of safety-related piping in the service water system to identify and determine the extent of degradation and to take appropriate corrective action to maintain operability. However, the radiographic technique used did not provide information on the most severe (deepest) degradation in the section of pipe examined. Without this information, the licensee's evaluation of the piping integrity, actions to perform inspections of additional pipe segments, and actions to perform more frequent inspection on the same section could be inappropriate. The licensee entered this finding into its corrective action program for evaluation.

This finding is greater than minor because it was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the procedure did not require adequate characterization of the extent of microbiologically induced corrosion (MIC) in service water (SW) piping to ensure that MIC degradation would not result in failure of the SW piping pressure boundary. Because there were no active through-wall leaks in this system and no known degradation which exceeded the Code minimum wall thickness, the finding is of very low safety significance. (Section 4OA2.a.(2)(i))

- Green. The inspectors identified a finding of very low safety significance with no associated violation for an inadequate extent-of-condition review for boric acid leakage found in the last quarter of 2005 on the safety injection-850 valves (containment recirculation sump isolation valves). During the current inspection, the inspectors identified boric acid leakage on other valves that the licensee had not evaluated. The licensee entered this finding into its corrective action program.

This finding is greater than minor because failing to evaluate boric acid leakage would lead to component failure and had the potential to become a more significant safety concern. Because no safety function was lost, no Technical Specification train or maintenance rule safety function was lost, and there was no external event concerns. The finding is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of PI&R within the component of the corrective action program and the aspect of thorough evaluation of problems. (Section 4OA2.a.(2)(iii))

#### **Cornerstone: Occupational Radiation Protection**

- Green. The inspectors identified a finding of very low safety significance for the licensee's untimely completion of three root cause evaluations in the radiation protection area. The 3 evaluations were completed in 8-9 months instead of the 30 days stated in the corrective action program administrative procedure. Several due date extensions had been approved by station management early in the conduct of the evaluations and they eventually went overdue before they were completed. No violation of NRC requirements was identified. The licensee entered this finding into its corrective action program for evaluation.

The inspectors concluded that the issue of allowing the completion time for the three root cause evaluations to exceed the 30-day limit in the procedure is a finding that if left uncorrected would become a more significant safety concern, and thus, is a finding that is greater than minor. Because the finding did not involve an overexposure, a substantial potential for an overexposure, and a compromise of the ability to assess dose, it is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance within the component of work control and the aspect of coordinating work activities. (Section 4OA2.a.(2)(iv))

**B. Licensee-Identified Violations**

None.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA2 Problem Identification and Resolution (PI&R)

##### a. Assessment of the Corrective Action (CA) Program

##### (1) Inspection Scope

The inspectors reviewed items selected across the NRC's cornerstones of safety to determine if problems were being properly identified, characterized, and entered into the corrective action program for timely and complete evaluation and resolution. Specifically, the inspectors selected and reviewed over 200 corrective action program documents generated since October 2005, when the previous NRC problem identification and resolution team inspection was conducted (Inspection Report (IR) 05000266/2005012; 05000301/2005012). These documents included:

- action requests (ARs, the generic term for items entered into the corrective action program),
- condition reports (CAPs),
- corrective actions (CAs),
- condition evaluations (CEs),
- apparent cause evaluations (ACEs),
- root cause evaluations (RCEs),
- corrective actions to prevent recurrence (CAPRs),
- effectiveness reviews (EFRs),
- maintenance rule evaluations (MREs), and
- procedure change requests (PCRs).

In 2005, a year with two refueling and vessel head replacement outages, the site generated 8339 CAPs; in 2006, with one refueling outage, 6580 CAPs were generated. The inspectors also reviewed the CAs taken or planned for self-assessments in engineering and of the corrective action program. The results of the assessments were evaluated by comparing them to the inspectors' observations and findings. The inspectors also reviewed the timeliness, effectiveness, and thoroughness of the licensee's planned and final CAs for problems identified during the licensee's calculation reconstitution project and for selected NRC-identified Non-Cited Violations (NCVs) from the past year, including a recently completed Component Design Bases Inspection (IR 05000266/2006006; 05000301/2006006).

The inspectors evaluated the CAPs to determine the licensee's threshold for identifying problems and entering them into the corrective action program. Also, the licensee's efforts in establishing the scope of and resolving problems were evaluated through a review of nondestructive examination (NDE) records generated as part of the licensee's service water (SW) flow accelerated corrosion (FAC) and microbiologically induced corrosion (MIC) programs and through interviews of program specialists. To assist with

the evaluation of corrective action program implementation, the inspectors conducted several tours in the plant power block and attended several of the thrice-weekly CAP screening meetings, a meeting of the department CAP liaisons, a meeting of the Performance Assessment Review Board (PARB, formerly the corrective action review board), and a licensee-developed training session on engineering rigor (developed as a corrective action). Documents substantially reviewed by the inspectors are listed in the Attachment to this report. Completion of these interviews, observations, and record reviews constituted one inspection sample.

(2) Assessment

Identification of Issues

The inspectors concluded that, overall, the licensee was effective at identifying problems and entering them into the corrective action program. This was evidenced by the relatively few deficiencies identified by external groups (including the NRC) that had not been previously identified by the licensee. Licensee audits and assessments were of good depth and identified issues similar to those that were self-revealing or raised during previous NRC inspections. Appropriate actions were being taken by the licensee to address the corrective action program impacts of 1) the March 2006 implementation of new software for managing corrective action program documents and maintenance activities and 2) poor program implementation in the radiation protection group, which predated, but continued after, the March software change.

The inspectors did identify an example where the threshold for entering issues into the corrective action program was much higher than that used by most plant departments and programs. The inspectors noted that areas of pressure boundary degradation identified by the FAC program and the SW inspection program where wall thinning results were below the code wall thickness acceptance standard of 87.5 percent of the nominal piping wall thickness were not entered into the corrective action program. Further investigation revealed that the fleet procedures for both of these programs did not require the writing of a CAP until the measured pipe wall thickness was 30 percent or less of the nominal wall thickness. Although in some cases CAPs were written for degradation where wall thickness was above 30 percent, there were numerous other cases where they were not. This threshold for entering issues into the corrective action system was high compared to other surveillance programs, such as the equipment vibration monitoring program. The program engineer did not know the basis for the 30 percent value since in one instance on a nonsafety-related component, 30 percent of nominal wall thickness was actually below the minimum wall thickness calculated from the Code. Licensee personnel wrote CAP01064551 and CAP01064848 to address these issues.

The inspectors also noted while reviewing the SW inspection program that Code Case N-597-1 was referenced for use. The expected degradation mechanism in the service water system was MIC. Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," August 2005, which lists Code Cases approved by the NRC for use by licensees, restricted the use of this Code Case to FAC unless additional specific NRC approval was obtained. The more appropriate Code Case for the licensee to reference was N-513, which was more applicable to moderate

energy systems such as SW. The licensee had received approval from the NRC to use the most recent version of this Code Case, N-513-2, July 3, 2006; however, the program procedure still referenced Code Case N-597-1. Licensee personnel agreed it was more appropriate to reference Code Case N-513-2 and generated CAP01064465 to address this issue.

### Prioritization and Evaluation of Issues

The inspectors concluded that, overall, the licensee was effective at appropriately prioritizing and evaluating issues. The numerous findings and observations from the Component Design Bases Inspection and from previous NRC inspections were appropriately prioritized and evaluated, with one exception discussed below. Also, many of the ACEs and RCEs reviewed by the inspectors were of good-to-high quality. For example, the inspectors reviewed RCE01055988, "Unit 2 Unusual Event - RCS Identified Leakage > 25 Gallons per Minutes." The RCE was completed within the 30 days specified in the corrective action program administrative procedure and thoroughly discussed the event, the cause(s), the extent-of-condition review, the safety significance, and the CAs. Particularly useful was the discussion of the logic for the decisions regarding conclusions for the scope of the RCE, and the forward-looking and preventive nature of the recommendations to trend human factors issues in equipment failure trend and system health reports.

Some exceptions to the overall favorable performance in this area are discussed in the following sections.

(i) Failure to Characterize Pipe Wall Thicknesses in Degraded Areas

Introduction: The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," having a very low safety significance (Green), for an inadequate procedure for inspection of safety-related SW piping. The procedure allowed the licensee to use radiography to inspect SW piping and radiography is capable of identifying MIC, the expected type of degradation in the section of piping inspected. However, the use of radiography as provided for by the procedure would result in limited information on remaining wall thickness. Additional volumetric inspection, not required by the procedure, would be required to determine wall thickness information on the other sections of the pipe where MIC was identified.

Description: On December 11, 2006, the inspectors reviewed inspection documentation where the licensee noted degradation considered to be due to MIC that reduced the pipe wall thickness. The licensee had experienced through-wall failures in SW piping due to MIC as late as 2004 (IR 05000266/2005010; 05000301/2005010) and inspection results from 2001 through 2006 showed that portions of the SW pipe suffered varying degrees of wall thinning due to this mechanism. The licensee's experience with this flaw mechanism should result in an inspection methodology to identify and characterize the flaws. Flaw characterization was important for the licensee to be able to evaluate piping integrity issues, including operability and Code compliance, to make decisions on supplemental examinations of other sections

of pipe, and to adjust inspection frequency, as necessary, of the flawed section of pipe.

The licensee used radiographic examination to identify wall degradation in sections of pipe determined to be most susceptible by engineering evaluation. Use of radiography was allowed by procedure (corporate), FP-PE-SW-01, "Service Water and Fire Protection Inspection Program Procedure," Revision 2. The procedure contained suggested inspection methods for SW piping determined by engineering evaluations to be most susceptible to MIC. The licensee opted to use the radiographic examination technique referenced in the procedure. The radiography procedure used was capable of identifying areas affected by MIC but only provided wall thickness data at the tangent points to the radiographic source, typically the top, bottom, and two sides. However, these locations were not likely to correspond to the worst area of degradation in the pipe segment examined or to areas of identified MIC nodules. No additional volumetric exams were conducted to characterize the areas of observed MIC or determine the most severe wall thickness reduction in the pipe section examined.

For example, the 2006 radiography results from pipe Section EDG08-FP-S-01-06 was reviewed and it showed minimal wall thickness reduction (all thicknesses were greater than 87 percent of nominal wall) based on the tangential views. However, the radiographer had noted that extreme nodular build-up was identified and recommended ultrasonic thickness testing on off-tangent pits, but additional examinations were not conducted or scheduled. The inspectors concluded that there was no assurance provided that the pits identified met the Code requirements for wall thickness or could be evaluated for operability. Also, informed decisions on additional examinations for this section or other pipe sections could not be made without characterization of the wall thickness of all the flaws in the inspected section of pipe.

Analysis: The inspectors concluded that the failure of the licensee procedure to ensure all flaws identified in the inspected pipe segments were adequately characterized and evaluated is a performance deficiency warranting a significance evaluation. The inspectors reviewed this finding against the guidance contained in Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Dispositioning Screening," dated September 30, 2005. The inspectors concluded that this finding is greater than minor because it was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the procedure did not require adequate characterization of the extent of MIC in SW piping to ensure that MIC degradation would not result in failure of the SW piping pressure boundary.

The inspectors evaluated the finding using the guidance in IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors answered "yes" to the question of in the

Mitigating Systems Cornerstone worksheet that asked if the finding was a design or qualification deficiency confirmed not to result in loss of function per NRC Generic Letter 91-18. Therefore, the inspectors determined that this finding was of very low risk significance (Green). Specifically, there is no evidence of through-wall leakage or actual degradation that exceeded the Code wall thickness acceptance criteria.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documents, instructions, procedures, or drawings and be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to this, procedure FP-PE-SW-01, Service Water and Fire Protection Inspection Program," Revision 2, a procedure prescribing examination of safety-related SW piping for degradation, an activity affecting quality, allowed the licensee to use a radiographic technique that only measured wall thickness at the tangent locations, which were based on pipe configuration, and not the location of nodules or pits. As stated in step 5.2.2 of the procedure, "The most severe corrosion typically occurs under a nodule and corresponds to the minimum wall thickness at that pipe location." Without measuring the wall thicknesses associated with pits or nodules identified in the radiograph, evaluations to assess system operability and structural integrity would not be correct. For one section of pipe examined by radiography, all wall thicknesses at the tangent locations were within the piping acceptance standard (greater than .875 of nominal wall thickness) but extreme nodule buildup was noted on the radiograph whose wall thickness was not measured and, therefore, no evaluations were conducted. The licensee entered this finding into its corrective action program (as CAP01067144).

Because of the very low safety significance of this finding and because the issue was entered into the corrective action program, it is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 05000266/2006015-01; 05000301/2006015-01).

(ii) Growth Rate Evaluation for MIC

When wall thinning due to MIC was found on the pressure boundary, the licensee's procedure specified that a growth rate calculation was required to determine the remaining life of the component. During review of the growth rate evaluation for degraded piping due to MIC, the inspectors noted that the growth rate evaluation was automatically calculated by a software program. Per the fleet SW inspection program procedure, for inspected areas that have no previous inspection results, MIC growth rate was based on the date of initial operation of the plant. Where previous inspection results were available, the time from that previous inspection was used. The inspectors noted, however, that it was unlikely that the MIC degradation started when the plant began operation, in the early 1970s. The wall thickness data for one area were reviewed and had a calculated growth rate of 4.5 mils per year when using a period from the start of plant operations but a growth rate of 8.7 mils per year

when using a period between inspections. Since many of the pipe sections had only one inspection completed, the growth rates calculated may be significantly less than actual and, therefore, the remaining life of the pipe overestimated.

Most of the wall thinning results were obtained with radiography which measures wall thickness at the tangent points of the pipe wall. To accurately repeat the wall thickness measurements, the location of the radiographic source must be in the same spot. Documentation available of the radiography did not permit locating the source in the same spot. Also, while the thinned area was located on the radiographic view, it could not be located based on the report of the radiography. The program engineer was not sure that the minimum wall thicknesses identified on repeat inspections was from the same spot. If not, this would invalidate the growth rate determination. The licensee agreed with these concerns and generated CAP01067733 for evaluation.

(iii) Inadequate Extent-of-Condition Review

Introduction: The inspectors identified a finding of very low safety significance with no associated violation for an inadequate extent-of-condition review for boric acid leakage found in the last quarter of 2005 on the SI-850 valves (containment recirculation sump isolation valves). During the current inspection, the inspectors identified boric acid leakage on other valves that the licensee had not evaluated. The licensee entered this finding into its corrective action program.

Description: In late 2005, inspectors identified an NCV (IR 05000266/2005013; 05000301/2005013) after the licensee found boric acid accumulation on the carbon steel hydraulic actuator connecting rod and corrosion of the hydraulic cylinder closure nuts for the SI-850 valves (the containment recirculation sump isolation valves). As part of its CAs, the licensee completed ACE 1981. During the current inspection, the inspectors reviewed ACE 1981 to determine if an appropriate cause evaluation, extent-of-condition evaluation, and CAs had been established for previous NCV discussed above. An acceptable, detailed extent-of-condition review had been performed to evaluate the Inservice Testing (IST) Program for valve testing that may not detect stem separation; however, no extent-of-condition evaluation was performed to determine if other plant components could have undetected corrosion from unidentified boric acid deposits or from known deposits which had not yet been cleaned.

The resident inspectors had performed a partial walkdown shortly prior to this inspection and identified seven valves in the safety injection system with existing boric acid deposits.

From the information provided by the licensee and the inspectors' evaluation the following were identified:

- The current boric acid leakage and corrosion monitoring (BALCM) process had established a quarterly periodicity to perform walkdowns in the auxiliary building, rotating different levels in the building each

quarter. For valves identified as leakers during these walkdowns, the time from identification to cleaning or identification for repair was typically 4 months.

- The inspectors' walkdown identified heavy accumulations of boric acid on the packing and body-to-bonnet joint of valve 1SI-870B, the P-14B containment spray pump suction valve from the T-13 refueling water storage tank. Previously on January 3, 2006, the licensee identified the need to clean this valve. The valve was cleaned on May 4; however, since May, heavy deposits have again accumulated on the packing and body-to-bonnet joint. Following the existing BALCM process and schedule of quarterly walkdowns, followed by evaluation and cleaning or repair, the valve would not be walked down until the 1<sup>st</sup> quarter of 2007 and potentially not evaluated, cleaned, or repaired until the 2<sup>nd</sup> quarter of 2007.

The valve could potentially have boric acid deposits for as much as 1 year before the deposits were ultimately addressed unless identified by a system engineer walkdown or an auxiliary operator on rounds. Appendix C of BALCM program document noted that evaluation of the leakage should be performed prior to cleaning and that these evaluations may need to be changed after cleaning was performed as evidence of degradation may be revealed subsequent to cleaning. While the components affected for this valve were stainless steel, the same process issues and lengthy period of time between identification, evaluation, and cleaning and repair could occur for a stainless steel valve that had carbon steel parts exposed to boric acid.

- The most current BALCM Program Health Report indicated that the decontamination of components located in the auxiliary building and containment needed improvement, including optimizing the decontamination cleaning list and process. It also indicated that the boric acid database needed to be updated and improved to optimize the data entry and the evaluation portion of the boric acid program - especially the walkdowns.

Analysis: The inspectors determined that the licensee's failure to perform an extent-of-condition review for ACE 1981 to determine whether boric acid deposits on safety-related equipment were being promptly identified, evaluated, and dispositioned is a performance deficiency warranting a significance evaluation. The inspectors reviewed this finding against the guidance contained in IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Dispositioning Screening." The inspectors concluded that this finding is greater than minor because failing to evaluate boric acid leakage would lead to component failure and had the potential to become a more significant safety concern. Specifically, valve 1SI-870B had boric acid deposits that had not been promptly identified and dispositioned since it was cleaned in May 2006.

Additionally, the finding is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequence. The inspectors performed a Phase 1 significance determination process (SDP) review of this finding using the guidance provided in IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors answered "no" to all questions in the Mitigating System Cornerstone worksheet; therefore, the inspectors determined that this finding was of very low risk significance (FIN 05000266/2006015-02; 05000301/2006015-02). The licensee agreed that the extent-of-condition review performed for the original NCV was inadequate and entered the finding into its corrective action program as CAP1067005. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of PI&R within the component of the corrective action program and the aspect of thorough evaluation of problems.

Enforcement: Because the original violation identified in NCV 05000266/2005013-04 and NCV05000301/2005013-04 was not a significant condition adverse to quality, there is no regulatory requirement to perform a causal analysis which would include an extent-of-condition review; hence, there is no violation of NRC requirements.

(iv) Untimely Completion of RCEs

Introduction: The inspectors identified a finding of very low safety significance (Green) for the licensee's untimely completion of 3 RCEs in the radiation protection area. The inspectors did not identify a corresponding violation of NRC requirements.

Description: Root Cause Evaluation 296, "Improvements Needed in Radiation Worker Practices," was initiated in early November 2006 after several poor radiation worker practices were identified in late October 2005 during an external assessment. The RCE was originally assigned a 45-day completion date but was not completed until mid-July 2006. Root Cause Evaluation 302, "Radiation Protection Line Ownership/Partnership with Training," was initiated in early January 2006 after a self-assessment in early December 2005 identified a continuing series of deviations in the radiation protection training area. The RCE was originally assigned a 30-day completion date but was downgraded to an ACE in mid-August 2006 and was completed by early October 2006. Root Cause Evaluation 303, "Radiation Protection (RP) Organizational Effectiveness Deficiencies," also was initiated because of the RP self-assessment in December 2005. The RCE was originally assigned a 45-day completion date but was not completed until mid-September 2006.

The licensee's administrative procedure for the corrective action program, FP-PA-ARP-01, "CAP Action Request Process," stated that evaluations should be completed in 30 days or less but that actual assigned due dates should be based on how long it would take to complete the evaluation. Due dates exceeding the 30-days could be established at management discretion with the

expectation that justification for exceeding the 30-days be documented. Several extensions were obtained from station senior management for the 3 RCEs but they eventually went overdue because of a high workload in the radiation protection department and, in mid-May 2006, the corrective action program manager wrote a CAP to document the problem. In mid-June, quality assurance (Nuclear Oversight, NOS) and radiation protection personnel also wrote CAPs for the overdue RCEs; and in mid-July, an external team assessing the corrective action program raised a concern about the protracted completion of the RCEs, appropriately noting that an RCE represented the highest level of problem evaluation undertaken at a nuclear power plant and should be a timely, high quality effort conducted by a well-qualified group. The inspectors noted that, whereas, the completed RCEs were of good-to-high quality and were conducted by well-qualified groups, the 8-9 months that elapsed for completion of the RCEs did not represent timely performance.

An additional observation by the inspectors was that the CAP written by radiation protection personnel in June 2006 asserted that the problem with completion of the 3 RCEs may be similar to a problem identified in 2004 with support of RCEs. However, the CAP was closed to another CAP and associated ACE intended to address the recent overdue RCEs, and this assertion, of possibly ineffective CAs from 2004, was not addressed.

Analysis: The inspectors concluded that the 8-9 months taken by the licensee to complete the 3 RCEs, well beyond the 30-day default limit in the corrective action program administrative procedure and outside of a reasonable interpretation of the allowance for due date extensions in the procedure, is a performance deficiency warranting a significance evaluation. Using IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 30, 2005, the inspectors concluded that the issue of allowing the completion time for the 3 RCEs to exceed the 30-day procedure limit is a finding that if left uncorrected would become a more significant safety concern, and thus, is a finding that is greater than minor. Using IMC 0609, "Significance Determination Process," Appendix C, "Occupational Radiation Safety Significance Determination Process," dated December 16, 2003, the inspectors concluded that this finding is of very low safety significance (Green) because it did not involve an overexposure, a substantial potential for an overexposure, and a compromise of the ability to assess dose (FIN 05000266/2006015-03; 05000301/2006015-03). In response to the inspectors' concern about the timeliness of the RCEs, the licensee wrote CAP01066188, "PARB & CAP Coach Action on RCEs." The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance within the component of work control and the aspect of coordinating work activities.

Enforcement: Because the 3 RCEs pertained to radiation protection, which is not subject to Appendix B of 10 CFR Part 50, the requirements of Criterion XVI of Appendix B for prompt identification and resolution of problems does not apply and no violation of NRC requirements was identified.

### Effectiveness of Corrective Action

The inspectors concluded that, overall, the licensee has taken effective CAs to address identified problems. One notable example was the licensee's recently implemented Excellence in Technical Rigor Training, developed by the licensee for recurrent problems identified in the past several years with poor technical rigor in engineering products. The inspectors observed much of the initial offering of the training and found it to be well-planned and engaging for course participants.

The inspectors also identified several examples in the area of CAs where additional attention by the licensee may be warranted to ensure actions are prompt and effective.

Associated with the CAs for a previous NCV, the licensee conducted a root cause evaluation (RCE 297) and identified that one of the causal factors for inadequate design control of replacement SW 322/360 valves was inadequate technical information within the purchase orders. However, the inspectors noted that the implementation of the action to perform technical reviews of purchase orders has been extended and was currently scheduled for March 2007, a large delay for a problem discovered in late 2005.

For another late 2005 NCV, pertaining to the failure to recognize the closed safety function for the SI-850 valves, the licensee's ACE identified the need to change the IST background document with respect to the closed safety function, a condition first identified by the NRC in 1992 but inappropriately resolved at that time by the licensee. There currently existed a CAP to update the IST data base; however, it was scheduled for completion in December 2007, a rather extended completion date for an issue that was not properly addressed in 1992 and for which extensive NRC inspection activities occurred in 2005 (IR 05000266/2005013; 05000301/2005013).

The final example is the protracted resolution of four improperly installed pendent sprinkler heads in the G-01 and G-02 emergency diesel rooms. The licensee identified the problem in 2001-2002, after the heads were installed in mid-2001, and it has been entered on different occasions in both the former corrective action program and the current system but no definitive resolution, either through modification of the piping to the heads or institution of periodic flushing to remove any accumulation sediment, has been established.

#### b. Assessment of the Use of Operating Experience

##### (1) Inspection Scope

The inspectors reviewed the licensee's evaluation of industry operating experience from the past 5 years in the areas of FAC and MIC to determine if industry experience was being promptly reviewed by appropriately qualified individuals at Point Beach and actions, either CAs or program enhancements, were being taken to address those issues that were applicable to Point Beach.

(2) Assessment

No observations or findings were identified by the inspectors. The licensee was using appropriately qualified individuals to promptly evaluate industry experience related to FAC and MIC. Corrective Actions and program enhancements were entered into the corrective action program, as necessary, to address those items applicable to Point Beach.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The inspectors reviewed the corrective action program disposition of issues from recent Confirmatory Action Letter-related self-assessments of the engineering and corrective action programs, from quality assurance (NOS) short-term narrow focus reviews, and from quarterly Department Roll Up Meeting reviews in the engineering and radiation protection areas. The purpose of the inspectors' review was to determine if the licensee's self-assessment program was functioning to identify issues and to enter those problems into the corrective action program for appropriate prioritization, evaluation, and correction.

(2) Assessment

The inspectors concluded that, overall, the licensee's use of self-assessments and audits was appropriate for the identification, evaluation, and correction of issues.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

Approximately 30 individuals were interviewed from various departments about their willingness to raise nuclear safety issues. These individuals were selected from departments which showed low or declined scores on the licensee's latest safety culture assessment (conducted earlier in 2006) and included both the worker and supervisor levels. In addition, the current Employee Concerns Program (ECP) manager, a former ECP manager, a department manager, and a member of the Nuclear Safety Culture Assessment Champions Group were interviewed. The purpose of the Champions group was to address issues identified in the latest site safety culture assessment. Selected documents were also reviewed to assess the safety-conscious work environment (SCWE) at the site.

(2) Assessment

(i) Willingness to Raise Nuclear Safety Issues

All the individual interviewed indicated they did not have any hesitancy in raising nuclear safety issues. Typically, they have raised issues and concerns through their supervisors and then followed the supervisor's recommendation, which often involved entering the issue into the corrective action program. All the

individuals interviewed expressed positive experiences for bringing issues to their supervisors and could name several other avenues for raising concerns. The majority of interviewees explained that going through the supervisor and using the corrective action program had been effective in their experience. Therefore, they have not had the need to use other avenues.

(ii) Corrective Action Program

Regarding the corrective action program, many of the interviewees stated that the recent change in the software system had increased the difficulty of and time required for entering issues, even though everyone had received training on it. Although they would not hesitate to enter an issue they believed to be related to nuclear safety, many indicated they or their co-workers may be less inclined to enter lower level issues into the software. Instead, they may go to their supervisor, ask another employee more familiar with the system to enter the issue for them, or write down the issue on paper and forward to the department which oversees the corrective action program.

On resolution of issues entered in the corrective action program issues, some individuals explained that although the program was effective at resolving nuclear safety issues, they did not have as much confidence in the program's handling of lower level (non-nuclear safety) issues. This included the timeliness of resolution as well as closing of issues for trending purposes. For some issues not related to nuclear safety, some workers had felt frustration at the amount of time taken for resolution. Several individuals also stated that sometimes they did not agree with closing issues for trending purposes, without further actions taken. They explained that although there were probably valid reasons for the closure of some of their issues to trending, they did not receive any explanation on the basis of the closure.

Regarding being able to track an issue entered into the corrective action program and following up on how it was resolved, some of the interviewees explained that the system allowed the originator of the issue to do so and that they had tracked issues in the past. However, a few individuals stated that the system did not allow for issue tracking and that they were not aware of what happened to some of the issues they had entered. The responses on ability to track issues in the program were inconsistent.

Overall, the individuals interviewed were willing to enter issues they believe to be related to nuclear safety into the corrective action program and had confidence in the effectiveness of resolution of such issues. However, some felt less willing to raise and/or had less confidence in the resolution of lower level issues.

(iii) Employee Concerns Program

All the interviewees were aware of the ECP. Most explained that they have heard about the program through various means, such as posters, presentations, and discussion by supervisors/management at meetings. Most did not have any personal experience with the ECP because they have not

needed to use it. Most interviewed either had no opinion due to lack of personal experience with the program or expressed an overall a favorable impression of the program. Three of the individual interviewed responded that they had brought issues to the ECP in the past. Two described positive experiences, and one regarded the experience as negative in that the issue (non-nuclear safety) was not effectively resolved to the person's satisfaction. Several individuals from one of the workgroups expressed very negative views of the ECP, including questioning the effectiveness, independence, and/or confidentiality of the program. This particular workgroup's views on the ECP were not consistent with those from other workgroups.

The current ECP manager was relatively new to the position (less than 1 year) and had been working to increase awareness of the program by attending various department meetings. In addition, the ECP manager stated that to increase confidence in the program, she had been accepting and attempting to resolve almost all issues received (whether or not related to nuclear safety). Performance of the ECP is tracked through one of the site's SCWE performance indicators and through an indicator based on feedback of employees using the program. Both sets of indicators did not show any significant trends (positive or negative) for the past 6 months. This was consistent with the site's overall SCWE performance indicators for the last 6 months, where no significant trends (positive or negative) were noted.

Overall, the majority of the individuals interviewed had no personal experience with the ECP but were aware of the program. Many had positive impressions of the program. However, most of the individuals from one of the departments interviewed provided very negative opinions on ECP and indicated they would be unlikely to use it.

(iv) Retaliation

When asked if there have been any instances where individuals experienced retaliation or other negative reaction for raising issues, some of the interviewees cited past incidents (from at least 2-3 years ago) which had been well known at the site or in some departments. No one interviewed was aware of any more recent instances.

(v) Safety Culture Survey

The site's latest safety culture survey, which was conducted in July-August 2006, showed some nominal improvement from the previous survey which was conducted in late 2004 (discussed in IR 05000266/2005012; 05000301/2005012). Overall, there were no significant changes from the previous survey data. The results identified a number of outlier groups or groups that had declines in results. These groups were then prioritized in the survey report as warranting additional attention.

When asked about the latest safety culture survey results, some of the interviewees had received communication on the results, but some had not.

This was consistent with the licensee's actions to start discussions with all the workgroups on the survey results, which was still in progress at the time of the inspection. When asked why their group scored low or had declined scores, individuals from several workgroups explained that the past incidents mentioned previously (from at least 2-3 years ago) directly affected the survey results. When asked if any more recent conditions/issues affected the survey results, several individuals believed high workload and/or overtime played a role. Individuals from one of the workgroups stated that the conditions which existed at the time of the survey that led to the negative results had improved. Interviewees from one of the other workgroups strongly stated that the conditions in their department which contributed to the negative survey results had not improved and that they did not see the conditions improving.

In addition to communicating the survey results to the worker level, the licensee has set up a Nuclear Safety Culture Assessment Champions Group to develop actions to address the survey results. A member of the group was interviewed and explained that the group was just getting started. The first group meeting was held the week before the PI&R inspection. The group was planning to develop an action plan by early 2007. The group member explained that the action plan would be at a general level and not at the department level. This lack of department-specific actions was noted by NRC inspectors for the licensee's response to the 2004 culture survey (IR 05000266/2005012; 05000301/2005012).

#### 4OA6 Meetings

##### .1 Exit Meeting

On December 15, 2006, the inspectors presented the preliminary inspection results to Mr. D. Koehl and members of his staff. The licensee did not identify any information, provided to or reviewed by the inspectors and likely to be included in the inspection report, as proprietary.

#### 4OA7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

G. Corell, Chemistry Manager  
M. Fencil, Engineering Improvement Manager  
F. Flentje, Regulatory Affairs Supervisor  
L. Hawki, Containment System Engineer  
F. Hennessy, Engineering Programs Supervisor  
W. Jensen, NDE Level III  
J. Janssen, FAC/SW Engineer  
D. Koehl, Site Vice-President  
K. Locke, Regulatory Compliance Analyst, PI&R Regulatory Lead  
M. Lorek, Plant Manager  
J. McCarthy, Director-Site Operations  
G. Packard, Operations Manager  
L. Peterson, Design Engineer Manager  
S. Pfaff, Performance Assessment Supervisor, PI&R Technical Lead  
M. Ray, Regulatory Affairs Manager  
C. Richardson, Design Engineer  
L. Schofield, Employee Concerns Manager  
D. Schuelke, Radiation Protection Manager  
G. Sherwood, Engineering Programs Manager  
G. Young, Quality Assurance Manager

#### Nuclear Regulatory Commission

M. Satorius, Director, Division of Reactor Projects  
P. Loudon, Chief, Reactor Projects Branch 5  
R. Krsek, Senior Resident Inspector, Point Beach

## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened and Closed

05000266/2006015-01; 05000301/2006015-01	NCV	Inadequate Procedure for Identifying Degraded Piping (Section 4OA2.a.(2)(ii))
05000266/2006015-02; 05000301/2006015-02	FIN	Inadequate Extent-of-Condition Review (Section 4OA2.a.(2)(iii))
05000266/2006015-03; 05000301/2006015-03	FIN	Untimely Completion of Three RCEs Involving Radiation Protection (Section 4OA2.a.(2)(iv))

## LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire documents, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

### Corrective Action Program Documents

ACE 1976; 10 CFR 50.72 Reports in 2005 Not Made in a Timely Manner  
ACE 1981; Inadequate CAs Taken for SI 850 Valve Material Condition, Revision 3  
ACE 2003; Apparent Discrepancy in the Defined Safety Function for SI-850 Valves  
ACE 2010; Why PBNP Did Not Identify Nor Aggressively Pursue SI-850 Valve Issues  
AR00451939; OE16287 Reactor Feed Pump Turbine Sealing Steam Small Bore Piping Not in FAC Program; dated June 12, 2003  
AR00469646; OE16632 Pinhole Leak on 20" Emergency Service Water Piping; dated August 8, 2003  
AR00500534; Main Feedwater System Degradation in Safety Related ASME Code Class 2 Piping; dated June 20, 2001  
AR00565379; OE17454, Unexpected Wear Detected on all Three Unit 2 Feedwater Pump Discharge Nozzles; dated January 13, 2004  
AR00740737; OE of FW Piping Failure at Mihama Unit 3; dated August 12, 2004  
AR00822004; Though Wall Leak on HX-55A1 G-01 EDG Heat Exchanger; dated March 20, 2005  
AR00825382; Evaluate FAC Program Engineering Analysis Criterion for Nonsafety-Related Pipe; dated May 31, 2006  
AR00882654; Operating Experience Evaluation of RIS 2005-18, Guidance for Establishing and Maintaining a Safety Conscious Work Environment  
AR00892311; Control Room Temperature Effects on Instrument Uncertainties  
AR00893969; Elevated Control Room Temperature Effects on Instrument Uncertainties  
AR00899102; Replacement for 1SW-322 and 1SW-360  
AR00901105; Concern with the Potential of SI-850 Valves to Drift Closed  
AR00901171; Timeliness in Determining Reportability for NRC EN Report of 11/08/2005  
AR00901762; Boric Acid Found on SI-850 Valves  
AR00901950; NRC Cites Potential Criterion 16 Violation  
AR00903441; Rigor of Speeds Should Be Reviewed  
AR00904595; Design Basis Leakage Detection Capability May Have Been Defeated  
AR00905207; Safety Function for Sump B Isolation Valves  
AR00905371; Potential Narrow Range RVLIS Design Deficiency  
AR00905767; CLB for Degraded Voltage Not Included in FSAR  
AR01023807; Evaluate OE Regarding Tornado Preparedness  
AR01028685; 480V Control Circuits Not Evaluated for Maximum Voltage  
AR01036505; OE22744 Service Water Pipe Leakage Due to Long Term Degradation; dated June 21, 2006  
AR01037554; Failure of LB Acceptance Criteria in Calc 2004-0009  
AR01040806 G-01 and G-02 Protective Relays Do Not Coordinate with Mains

AR01041098; Plant Betterment for Protective Settings  
AR01043014; 480V Bus Tie Operation Is Unanalyzed for Degraded Voltage  
AR01043326; 480V Bus Tie Operation Is Unanalyzed for Degraded Voltage  
AR01045011; CRR Project: RHR/SI Drawing Discrepancies  
AR01045387; Discrepancies or Missing Info in CARDS and Drawings  
AR01048547; CDBI - Potential Weakness in Our Response to AR00752940; dated September 6, 2006  
AR01048857; CDBI - License Basis Analysis Inconsistencies; dated September 7, 2006  
AR01053632; Common Cause Evaluation of Component Design Basis Inspection (CDBI) CAPs; Revision 1  
AR01053645; SW Line for K-2A Instrument Air Line Has Pits; dated October 4, 2006  
AR01054160; G-01 & G-02 Pendant Sprinklers; dated October 5, 2006  
AR01055427; PARB Action RP CAP Performance; dated October 12, 2006  
AR01055988; Actuation of Unit 2 PORV, RC-431C Due to MOB Opening  
AR01055990; Red Rust Colored Material Found on Horizontal Surfaces in U2; dated October 17, 2006  
AR01056770; UT Readings Are Below Minimum for 6" Elbow on Line EB-06MSR "D" Dump; dated October 22, 2006  
AR01056776; Determine If Component 2MSEB04-107 Can Operate 1 Cycle; dated October 20, 2006  
AR01057133; NDE Reading Below Minimum on 6" Elbow on MSR "D" Dump; dated October 22, 2006  
AR01066888; Error in Revised ACE 1976  
CA028459; Evaluate the Need to Correct/Modify Pendant Head Sprinklers That Are Not Provided With Return Bends in the G01 and G02 Diesel Generator Rooms; dated March 7, 2003  
CAP051703; Through Wall Pin Hole Leak in SW Piping to 2P-29 Pump; dated November 10, 2003  
CAP054622; Scope Expansion of Augmented Service Water Inspection of AFW Piping; dated March 9, 2004  
CAP056366; Replace First Elbow Downstream of 1CV-02085 Line to MSR "D"; dated May 4, 2002  
CAP067763; Track Wear of Component 1CSEB09-042; dated October 9, 2005  
CAP068292; NDE Data Collection of 1MSEB01-004; dated October 26, 2005  
CAP01030421; RP RCEs Remain Overdue; May 16, 2006  
CAP01036618; Management Oversight of the Corrective Action Program; June 23, 2006  
CAP01036817; RCE Process Support Improvements Still Needed at the Site; June 23, 2006  
CAP01043774; CAP Assessment - RCE Oversight & Implementation; August 10, 2006  
Effectiveness Review of Actions to Address the Apparent Cause of ACE 1976  
OPR 170; Annular Space Between the Piping Sleeves and SI Piping Have Been Grouted  
PCR01031919; New Procedure for Tornado Preparedness Guidelines  
RCE 291; Control Room Temperature Effects on Instrument Uncertainties  
RCE 296 (CAP00898873); Improvements Needed in Radiation Worker Practices; November 3, 2006  
RCE 297; Component Cooling Water HX Service Water Outlet Valve Failures; June 6, 2006  
RCE 302 (CAP00904439); Radiation Protection Line Ownership/Partnership with Training; January 7, 2006

RCE 303 (CAP00904444); Radiation Protection (RP) Organizational Effectiveness Deficiencies; January 7, 2006  
RCE 01055988-01; Unit 2 Unusual Event - RCS Identified Leakage > 25 GPM

#### Corrective Action Program Documents Generated Because of the Inspection

AR01064465; Usage of Code Case N-597-1 in the Service Water Inspection Program; dated November 29, 2006  
AR01064551; Redefine Threshold for Writing Service Water CAPs; dated November 30, 2006  
AR01064848; Unclear Service Water Program Wall Thickness Acceptance Criteria; dated December 1, 2006  
AR01067144; RT Data Collection of SW May Not Be Adequate; dated December 12, 2006  
AR01067733; Evaluate the Repeatability of NDE Data on SW; dated December 14, 2006  
CAP1064080; PI&R Corrective Action Due Dates  
CAP1064262; PI&R PCR Request Missed 2X04 During the PI&R Inspection  
CAP1064490; PI&R Level B CAP 00905207 Without Open PCRA Tracking PCR  
CAP1064780; PI&R Inadequate ACE for Criterion XVI Violation  
CAP1066188; PI&R PARB & CAP Coach Action on RCEs  
CAP1066394; PI&R NRC Question on Engineering External Self Assessment CAPS  
CAP1066875; PI&R Timeliness of Response to NRC Inspector Request  
CAP1066888; PI&R ACE 1976 Revision Contained an Error  
CAP1067005; PI&R Inadequate Extent of Condition of ACE 1981  
CAP1067421; PI&R Improper Closing of Corrective Action (SPEED Process)

#### Audits, Assessments and Self-Assessments

Assessment of Nuclear Safety Culture Snapshot Report; April 17-20, 2006; PBSA-PBNP-06-01  
Radiation Protection Department Roll-Up Meeting Results; December, 4<sup>th</sup> Quarter 2006; Draft  
Radiation Protection Department Roll-Up Meeting Results; July, 2nd Quarter 2006  
Radiation Protection Department Roll-Up Meeting Results; March, 1st Quarter 2006  
Radiation Protection Department Roll-Up Meeting Results; 2nd Quarter 2006  
NOS Observation 2006-002-3-005; Conduct of Chemistry Assessment; dated April 28, 2006  
NOS Observation 2006-002-3-006; Aspects of the Radiation Protection Program; dated April 28, 2006  
NOS Observation 2006-002-3-015; Corrective Action Program; dated June 29, 2006  
NOS Observation 2006-003-3-009; Radiation Protection Response to OE22154; dated July 28, 2006  
NOS Observation 2006-003-3-015; Radiation Protection Areas; dated September 30, 2006  
Snapshot Report 00904444; RP Application of the Corrective Action Program as an Improvement Tool; dated October 6, 2006  
2006 Nuclear Safety Culture Assessment Point Beach Nuclear Power Plant, Management Presentation; Synergy Consulting Services Corporation; dated October 2, 2006  
NMC Fleet Employee Concerns Program Focused Self-Assessment, January 16 - February 10, 2006; AR00890485

#### Other Documents

Boric Acid Indication Evaluation, BALCM Appendix C, Rev. 3  
Boric Acid Leakage and Corrosion Monitoring Program; Revision 3

Boric Acid Control Program Health Status; December 12, 2006  
Boric Acid Maintenance History and Indication History for SI system valves; December 2006  
Boric Acid Quarterly Cleaning Report  
Boric Acid Evaluation Numbers: 06-111, 060117, 06-118  
Boric Acid Cleaning List (Q1) 8' PAB and Facades  
Boric Acid Cleaning List (Q2) 46' and 66' and PAB  
Boric Acid Cleaning List (Q4) PAB HRA, Under Deck Plates, -5', -1'  
Boric Acid Monitoring List as of December 11, 2006  
Calculation No. WEP-SPT-34; RHR Flow Indication Uncertainty (F-626); Revision 4 (partial)  
Checklist for Success Handout (Technical Rigor Training)  
ESG 3.8; CRR Project Review Guidelines; Revision 0  
ESP Technical Rigor Training for ACE 2010, ACE 1981 and ACE 2003  
FG-PA-ACE-01; Apparent Cause Evaluation Manual; Revision 5  
FG-PA-CTC-01; CAP Trend Code Manual; Revision 6  
FG-PA-DRUM-01; Department Roll Up (DRUM) Manual - Department Performance Trending;  
Revision 3  
FG-PA-RCE-01; Root Cause Evaluation Manual; Revision 9  
FP-PA-ARP-01; CAP Action Request Process; Revisions 10-12  
FP-PE-FAC-01; Flow Accelerated Corrosion Inspection Program; Revision 2  
FP-PE-SW-01 (NP7.7.22); Service Water and Fire Protection Inspection Program; Revision 2  
Letter from Mr. Edward J. Weinkam, NMC to Mr. Gary Van Middleworth, VP Duane Arnold  
Energy Center; dated July 3, 2006  
Memo from D Villicana, Sr. RP Technical Instructor - Monticello to Monica Ray, Regulatory  
Affairs Manager - PB; RP Cap Summary Review; dated October 20, 2006  
Memo from Mary Beth Arnold to PARB Members, NPM 2006-0528; Minutes for the October 10,  
2006 PARB meeting; dated October 16, 2006  
NMC Employee Concerns Program Customer Feedback; October 2006  
Operations ACE Pre-Job Briefing; ACE for CAP01055427; dated October 19, 2006  
PARB Health Report; Coaching Area: Radiation Protection; 2<sup>nd</sup> Quarter 2006  
PARB Health Report; Coaching Area: Radiation Protection; 3<sup>rd</sup> Quarter 2006  
PARB Health Report; Coaching Area: Radiation Protection; October 2006  
PB-ESP-060-006L; Lesson Plan and Instructor Notes Excellence in Technical Rigor  
PB-SSP-062-001L; Event Reportability Requirements (Lesson Plan); Revision 0  
Program Health Report; Flow Accelerated Corrosion; dated October 30, 2006  
Program Health Report; Service Water/Microbiologically Influence Corrosion; dated  
October 31, 2006  
Radiographic Examination Record, W.O. 288817, Component EDG08-FP-S-01-06; dated  
October 3, 2006  
Radiation Protection CAP Process Improvement Plan; dated November 15, 2006  
Reportability Lessons Learned Power Point Presentation  
SCWE Site Performance Indicators for April 2006 through October 2006  
Technical Rigor Tools Handout  
Work Order 0505892; Perform VT-2 Examination IAW NDE-753 and BALCM Program  
Work Order 00271834; VT-2 Examination for Leakage (BALCM)  
2006-0025; Nuclear Management Company Source Surveillance Report 2; March 6, 2006



## LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agency Wide Access Management System
AR	Action Request
ASME	American Society of Mechanical Engineers
BALCM	Boric Acid Leakage and Corrosion Monitoring
CA	Corrective Action
CAP	Condition Report
CFR	Code of Federal Regulations
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
DRUM	Department Roll-Up Meeting
ECP	Employee Concerns Program
FAC	Flow Accelerated Corrosion
FIN	Finding
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IST	Inservice Testing
MIC	Microbiologically Induced Corrosion
MRE	Maintenance Rule Evaluation
NCV	Non-Cited Violation
NDE	Nondestructive Examination
NMC	Nuclear Management Company
NOS	Nuclear Oversight (Quality Assurance)
NP	Nuclear Plant Procedure
NRC	Nuclear Regulatory Commission
OE	Operating Experience
OPR	Operability Recommendation (Operability Determination)
PBNP	Point Beach Nuclear Plant
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Testing
PWR	Pressurized Water Reactor
RCE	Root Cause Evaluation
SCWE	Safety-Conscious Work Environment
SDP	Significance Determination Process
SI	Safety Injection
SW	Service Water
TS	Technical Specification
URI	Unresolved item