September 23, 2005

CAL 3-04-001

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 SPECIAL INSPECTION REPORT 05000266/2005011;
05000301/2005011

Dear Mr. Koehl:

On August 24, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed a special inspection at your Point Beach Nuclear Plant, Units 1 and 2. The purpose of the inspection was to review your progress in meeting the commitments documented in the Confirmatory Action Letter (CAL) dated April 21, 2004. The enclosed report documents the inspection results. The preliminary results were discussed on August 24, 2005, with you and members of your staff.

The purpose of the inspection was to review your progress in implementing CAL commitments in the engineering area. Included in the review was an assessment of the corrective actions taken for the two Red findings from 2003 associated with the auxiliary feedwater system and your program for reviewing engineering calculations and analyses provided by vendors. The inspection examined activities conducted under the CAL and your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, two findings of very low safety significance were identified, both of which involved violations of NRC requirements. However, because these violations were of very low safety significance, not willful, and not repetitive, and because the issues were entered into your corrective action program, the NRC is treating these findings as Non-Cited Violations in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

From our review of the corrective actions for the two Red findings from 2003 associated with the auxiliary feedwater system, we concluded that adequate actions have been taken to prevent recurrence of the specific auxiliary feedwater system problems that resulted in the two findings.

As discussed in our letter to you dated September 6, 2005, the NRC will use the results of this inspection, the expanded-scope Problem Identification and Resolution inspection, the baseline Modifications/50.59 inspection scheduled for December, and the 3rd and 4th quarter resident inspector integrated inspections to assess the adequacy of actions taken to address the CAL Areas of Engineering Design Control, Human Performance, and Corrective Action Program. A satisfactory assessment would be a basis for the closure of the Confirmatory Action Letter.

The results of this assessment will be factored into the NRC's quarterly evaluation of Point Beach performance, described in the Annual Assessment Letter - Point Beach Nuclear Plant, dated March 2, 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.

If you have any questions regarding the results of the inspection, please contact me or Mr. Patrick Louden of my staff at (630) 829-9627.

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/

Mark A. Satorius, Director
Division of Reactor Projects

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

Enclosure: Inspection Report 05000266/2005011; 05000301/2005011
w/Attachment: Supplemental Information

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REGION III

Docket Nos:	50-266; 50-301
License Nos:	DPR-24; DPR-27
Report No:	05000266/2005011; 05000301/2005011
Licensee:	Nuclear Management Company, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	6610 Nuclear Road Two Rivers, WI 54241
Dates:	July 25 - August 24, 2005
Inspectors:	M. Kunowski, Project Engineer, Team Lead, Region III S. Burgess, Senior Reactor Analyst, Region III J. Jacobson, Senior Engineering Inspector, Region III S. Unikewicz, Office of Nuclear Reactor Regulation J. Giessner, Reactor Engineer, Region III D. Jones, Resident Inspector, H. B. Robinson 2 Plant, Region II A. Rosebrook, Project Engineer, Region I J. Neurauter, Reactor Engineer, Region III R. Ruiz, Reactor Engineer, Region III
Approved by:	P. Louden, Chief Branch 5 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000266/2005011, 05000301/2005011; Nuclear Management Company; on 7/25/2005 - 08/24/2005; Point Beach Nuclear Plant, Units 1 & 2; Special Inspection, Confirmatory Action Letter Followup.

This report covers a special inspection conducted to review the licensee's progress in meeting commitments documented in Confirmatory Action Letter (CAL) 3-04-001, dated April 21, 2004. Two findings were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. A Green finding associated with a Non-Cited Violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed on July 19, 2005, for the failure to have an appropriate procedure to assure proper operation of the motor-driven auxiliary feedwater (AFW) minimum recirculation valves when operating the AFW system from outside the control room using local panels N-01 and N-02. As a result, if operators had performed AOP-10, "Control Room Inaccessibility," Revision 3, during an event, minimum recirculation valves AF-4007 and AF-4014 would not have opened when the AFW pumps were locally started with the discharge valves closed. This could have caused pump damage within one to two minutes.

  The issue was more than minor because 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 inspectors evaluated the finding using IMC 0609, Appendix A, which indicated that a Phase 2 evaluation was necessary. However, because procedure AOP-10 was used when the control room was evacuated with no Appendix R fire and no other accident conditions, a Phase 3 evaluation was performed. The issue was characterized as Green based on the low initiating event frequency (evacuation of the control room for reasons other than an Appendix R fire) coupled with the accident mitigation available from the turbine-driven AFW pumps and feed and bleed capability. The licensee took prompt corrective action to revise procedure AOP-10. (Section 3.3)

- Severity Level IV. The inspectors identified a Severity Level IV, Non-Cited Violation of 10 CFR 50.59(d)(1) for the licensee's failure in September 2002 to perform a safety evaluation of the removal of the internals of the auxiliary

feedwater (AFW) common recirculation line check valve, AF-117. Specifically, the licensee 'screened out' adverse changes made concerning the function and operation of all four AFW pumps. In this case, an automatic passive design feature of the AFW recirculation line piping was being made unavailable and the function was being changed to operation of an untested, nonsafety-related, active component--the AFW common recirculation line relief valve AF-4035--and it was being supplemented through the use of manual operator actions. This change warranted a 10 CFR 50.59 safety evaluation to determine if the changes met the criteria requiring a licensee amendment.

Because the issue potentially affected the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. This finding was determined to be more than minor because the inspectors could not reasonably determine that the original change would have ultimately required NRC approval. The inspectors completed a Significance Determination Review using IMC 0609, Appendix A "Significance Determination of Reactor Inspection Findings for At Power Situations." Using the Phase 1 Screening worksheet the finding was determined to be of very low safety significance (Green) since the finding did not represent an actual loss of safety function for greater than the Technical Specification allowed outage time. Comparing this item to the examples in NUREG 1600, Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that do not involve circumstances in which a change that required prior Commission approval would not be found acceptable had the approval been sought." As a result, the issue was considered to be of very low safety significance and was dispositioned as a Severity Level IV, Non-Cited Violation (NCV). (Section 3.4)

B. Licensee-Identified Findings

None.

REPORT DETAILS

1. Background

In the first quarter of 2003, Point Beach Nuclear Plant entered the Multiple/Repetitive Degraded Cornerstone Column (Column IV) of the Action Matrix of NRC Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," as a result of a high safety significance (Red) inspection finding. The finding involved the potential for a common mode failure of the auxiliary feedwater system (AFW) following a loss of the instrument air system. This issue was initially identified by the licensee in November 2001. A second Red inspection finding (Yellow for Unit 1 and Red for Unit 2) was subsequently identified which involved the potential common mode failure of the AFW pumps due to plugging of the recirculation line pressure reduction orifices. This issue was initially identified in October 2002. From July 28 to December 16, 2003, the NRC conducted a three-phase supplemental inspection to review the corrective actions for the two AFW issues, in accordance with NRC Inspection Procedure (IP) 95003, "Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or One Red Input." The results of this inspection were documented in Inspection Report (IR) 05000266/2003007; 05000301/2003007, dated February 4, 2004. Subsequently, on March 17, 2004, a Notice of Violation and a $60,000 civil penalty were issued for a problem identified during the IP 95003 inspection regarding unauthorized changes to the Emergency Action Level scheme in the Point Beach Emergency Response Plan.

On April 21, 2004, Confirmatory Action Letter (CAL) 3-04-001 was issued documenting commitments made by Nuclear Management Company, LLC (NMC) in a March 22, 2004, letter to address areas of regulatory concern identified during the IP 95003 inspection. The basis for these commitments was the NMC Point Beach Excellence Plan, an improvement plan intended to focus the Point Beach organization, site programs, and initiatives on, not only the performance issues identified during the IP 95003 inspection, but also on issues identified through internal assessments and on areas for meeting NMC's goal of improving performance at Point Beach. Updates of the Excellence Plan were submitted to the NRC on April 1, August 13, and December 28, 2004. The Excellence Plan is composed of Action Plans to address improvement areas. Each Action Plan is composed of Action Steps with corresponding due dates. Of the total 1841 Action Steps in the Excellence Plan, 143 steps were part of the NMC March 22nd commitment letter.

In June 2004, the initial special inspection of the licensee's implementation of the commitments in the CAL was conducted (IR 05000266/2004005; 05000301/2004005). Of the 6 Action Step closure packages reviewed, 2 packages had problems indicative of a need for licensee management to provide additional oversight of package quality. An in-progress assessment of additional Action Step closure packages was conducted in July during an NRC Safety System Design and Performance Capability inspection (IR 05000266/2004004; 05000301/2004004). In August and September, Action Step closure packages pertaining to emergency preparedness were reviewed during an inspection (IR 05000266/2004007; 05000301/2004007). As with the inspection in June, additional information for several packages was required in order for the inspectors to

conclude that all necessary actions related to emergency preparedness had been completed. In late August to early November 2004, 8 Action Step closure packages were reviewed during an expanded problem identification and resolution inspection (IR 05000266/2004008; 05000301/2004008). During that inspection, the inspectors concluded that 1 of the packages, pertaining to the conduct of an interim effectiveness review of improvements and corrective actions for the operating experience program, was closed prematurely. And in January 2005, the NRC completed its second CAL commitment-specific special inspection (IR 05000266/2004011; 05000301/2004011). Closure packages for 24 Action Steps specifically committed to in the CAL by the licensee and packages for 2 Action Steps not committed to in the CAL were reviewed by the inspectors. The inspectors identified no findings; however, they did identify inconsistency in the quality of the closure packages and ambiguity with the actual closure status of several of the packages. This issue was discussed further with the licensee and corrective actions were taken.

In June 2005, the NRC completed its third CAL commitment-specific special inspection (IR 05000266/2005014; 05000301/2005014). Closure packages for 14 Action Steps were reviewed by the inspectors. And on July 1, 2005, the NRC completed a review of closure packages for 15 CAL commitment Action Steps and 9 non-commitment Action Steps in the emergency preparedness area (IR 05000266/2005009; 05000301/2005009). No findings were identified during these 2 inspections. After the completion of the current inspection, the NRC informed the licensee in a letter dated September 6, 2005, that actions taken by NMC in the Engineering/Operations Interface and Emergency Preparedness Areas of Regulatory Concern had been adequate and provided reasonable assurance of sustainability. Consequently, no further review of these two areas was planned other than that which may occur during the normal baseline program inspections.

The main purpose of the current inspection was to review the licensee's progress in implementing CAL commitments in the Engineering Design Control Area of Regulatory Concern. Included in the review was an assessment of the corrective actions taken for the two Red findings from 2003 associated with the auxiliary feedwater system and the licensee's program for reviewing engineering calculations and analyses provided by vendors. The inspection consisted of interviews with personnel, attendance at plant meetings, in-plant observations, and a review of procedures, Action Plan Action Step closure packages, and other plant records. The Action Steps reviewed by the inspectors are discussed below, grouped in 3 of the 5 regulatory areas of concern from the April 21, 2004, CAL.

2. Review of Completed Excellence Plan Action Plan Action Steps

1. Area of Regulatory Concern: Engineering Design Control

a. Inspection Scope

The inspectors reviewed the following completed Excellence Plan Action Plan Action Steps associated with the CAL engineering design control area of regulatory concern.

The review included documents included in the Action Step closure packages, other plant documents, and interviews of personnel.

b. Observations

Action Plan	Title	Step
OR-08-007	Utilize the Quality Review Team	4

This step consisted of performing an Effectiveness Review of the Quality Review Team (QRT). The purpose of the QRT was to assess engineering products for quality as defined by NMC standards and procedures.

Implementation of Action Plan Action Step

Utilization of the QRT was previously reviewed by NRC and documented in IR 05000266/2004005; 05000301/2004005. That review documented a weakness in the depth of QRT review of the technical adequacy of engineering products. At that time, the NRC inspectors attended several QRT meetings and noted an absence of discussion of technical attributes such as design bases adequacy, Code reconciliations, calculation methodology and accuracy, etc. as delineated in Attachment 1 to Point Beach Nuclear Plant Business Manual Procedure (NP) 7.1.7, Revision 1, "Quality Review Team."

During the current inspection, the licensee conducted Effectiveness Review EFR 055708 dated November 9, 2004. This EFR documented a generally improving trend in engineering product quality as measured by the QRT scoring system.

The performance measure of QRT directed rework averaged over a six-month period to be maintained at no greater than 15 percent has been met since late 2003 with exceptions noted in April and June of 2005 when the average slightly exceeded 15 percent. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-003	Validate Design Bases for High Risk Systems	3

This step revised and implemented NP 7.7.3, "Design Basis Document Creation, Revision, and Maintenance," and DG-G10, "Design Basis Document Writer's Guide," to support validation and streamlining of the subject design basis documents (DBDs).

Implementation of Action Plan Action Step

NP 7.7.3, "Design Basis Document Creation, Revision, and Maintenance," was revised and was utilized to perform the DBD validations for auxiliary feedwater, service water, and fire protection. The inspectors concluded that the procedure had been an effective

tool in producing a consistent DBD product. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-003	Validate Design Bases for High Risk Systems	4

This step issued the validation plan and process for performing validation, performing revisions, and identifying open items and entering them into the corrective action program.

Implementation of Action Plan Action Step

Along with the revision to NP 7.7.3, a design basis validation checklist was developed and issued. The inspectors concluded that the procedure and checklist was effective in identifying and tracking corrective actions needed to update the DBDs. Although no new significant issues were identified numerous CAPs were written that enhanced and clarified DBD information. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-003	Validate Design Bases for High Risk Systems	5

This step developed DBD resource requirements and milestone schedule based on completion of work within a two-year interval.

Implementation of Action Plan Action Step

The licensee's DBD validation plan included a resource requirement evaluation and a milestone schedule to complete four additional risk-significant systems, which included the emergency diesel generators, component cooling, 480-Volt alternating current (Vac), and 13.8-kilo-Vac (kVac) systems. The licensee's schedule showed that all four systems would be completed by the end of June 2006. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-003	Validate Design Bases for High Risk Systems	6A

This step required completion of the DBD for the following high risk systems: auxiliary feedwater, service water, and fire protection.

Implementation of Action Plan Action Step

Based on reviews of the DBD validation checklists and validation reports, DBD validation met the requirements of procedure NP 7.7.3, "Design Basis Document Creation, Revision, and Maintenance." Validation was performed by personnel knowledgeable of DBD processes and of the subject matter of the DBDs being validated. The reports identified valid discrepancies and included appropriate recommendations for enhancing DBD content. However, the inspectors identified three examples where the AFW DBD was incorrect: (1) condensate storage tank (CST) maximum temperature was listed as 120EF versus 100EF, (2) safety relief valve AF-4035 was listed as safety-related versus nonsafety-related, and (3) all four check valves in the recirculation line were not discussed as having a safety function. The licensee wrote CAP066354 in response to the identification of the discrepancies. Although no previously unidentified safety significant issues were raised in the reports, the inspectors concluded that additional attention to detail was warranted. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-005	Validate and Integrate Calculations and Setpoints	2.D

This action step was originally intended to correspond with the completion of the calculation project as scheduled for the end of the 2nd quarter of 2005. However, as documented in the March 31, 2005, letter to the NRC, this step has been revised to consist of providing a copy of the signature page of each calculation approved by June 15, 2005, showing the approval signatures. The revised project schedule indicated that approximately 10 percent of the calculations to be revised would be ready for NRC review by the end of the 2nd quarter of 2005.

Implementation of Action Plan Action Step

At the time of the review, the licensee had approved 22 of the 196 total calculations, which was in line with the figure of 10 percent projected by the licensee's schedule. The inspectors verified that the licensee had provided the cover sheets of those calculations approved by June 15, 2005, thereby fulfilling the revised commitment of March 31, 2005. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-005	Validate and Integrate Calculations and Setpoints	2.E

This step describes the requirements for the approval of emergency operating procedure (EOP) setpoint calculations by the EOP coordinator.

Implementation of Action Plan Action Step

The licensee developed a Calculation Review and Reconstitution Project Plan that included the participation of the EOP procedure coordinator in the owner's acceptance review (OAR) of EOP setpoint calculations. The inspectors reviewed three completed calculations (the only completed EOP setpoint calculation and two uncertainty calculations) and interviewed personnel. From this, the inspectors determined that there was no formal process or signature approval required for the EOP coordinator's participation in the OAR review. The EOP coordinator participated in the 30 percent review of Calculation WEP-SPT-20-02-A, Steam Generator Pressure EOP Setpoints, but had not signed off on the approval paperwork. The licensee initiated CAP065997 in response to this observation.

The review of Calculation WEP-SPT-34, RHR Flow Uncertainty, included a validated assumption for the residual heat removal (RHR) minimum-flow recirculation line flow rate that was based on flow rates measured in 1988. While validating the use of 1988 data in the reconstitution of this design calculation, the inspectors noted the following problems.

In response to NRC Bulletin No. 88-04 (Potential Safety Related Pump Loss), the RHR pump manufacturer recommended a minimum flow rate of 520 gallons per minute (gpm) during continuous operation to prevent flow instabilities associated with low-flow operation and a flow rate of 260 gpm for intermittent operation. Utilizing ultrasonic testing in 1988, the licensee determined that the minimum-flow rates of the RHR pumps were in the range of 160 to 165 gpm. For these rates, the manufacturer determined that the RHR pumps could be operated for approximately 30 minutes without incurring damage. In 1988, to address the low minimum-flow recirculating line flow rates, the licensee issued special orders and implemented procedure changes to restrict RHR pump operation to less then 30 minutes during testing and routine pump operation; however, the EOPs were not revised to include the 30-minute limit. Additionally, the 30-minute limit was not validated and verified for accident scenarios where the RHR pumps would be operated on minimum-flow recirculation when reactor coolant system pressure was greater than the discharge pressure of the pump. Licensee reviews determined that the 30-minute limit could possibly be exceeded during certain accident scenarios.

Also in response to NRC Bulletin No. 88-04, the licensee installed full-flow test lines in the RHR system to achieve the pump manufacturer’s recommended minimum flow rates of 520 gpm. After the installation of the modification, the licensee revised its surveillance test procedures to utilize the newly installed test line and isolate the minimum-flow recirculating line during testing. By isolating the minimum-flow test line during testing, the licensee does not periodically verify acceptable flow limits (160 - 165 gpm). Since 1993, the licensee has not measured the minimum-flow recirculating flow rates for the RHR pumps. Flow rates for Train 2A and 2B were measured in 1993 as a corrective action related to LER 92-003. In 1992, the licensee issued LER 92-003 as a result of a foam rubber plug that was discovered blocking the suction of a containment spray pump. The investigation determined that the plug was left in the RHR system during the installation of the test lines. In 1993, to verify that no foreign material remained in the system, the licensee ultrasonically

measured the minimum-flow recirculating line flow rates. The recorded flow rates were 136 and 149 gpm for trains 2A and 2B, less than the 160 to 165 gpm values of 1988. In response to questions from the inspectors, the licensee was unable to identify an evaluation that was completed for the use of the 1988 values instead of the 1993 values in Calculation WEP-SPT-34.

The licensee wrote CAP066274 and CAP066366 to address the inspectors' concerns with RHR recirculation flow. This step will continue to be reviewed during a future inspection of CAL action items.

Action Plan	Title	Step
OP-14-005	Validate and Integrate Calculations and Setpoints	8

This step consisted of performing a mid-project effectiveness review (EFR055453) of work in-progress/completed to review, validate, and update safety-related calculations, as of the 3rd quarter of 2004.

Implementation of Action Plan Action Step

OP-14-005, Step 8, was previously reviewed by the NRC, as documented in IR 2004011. However, the final completion of this step was contingent upon the satisfactory resolution of the issues identified during that review. The NRC reported in IR 2004011 that the licensee's EFR was considered a reasonable effort to establish the current status of the project and identify potential barriers to successful completion; however, the EFR did not provide an assessment of the action plan effectiveness, as intended.

Subsequently, the licensee initiated CAP060659 and planned additional actions to correct the issues related to completion of this action step. As a result, CA060565 was added to the scope of Step 9 of this action plan and was implemented to assess the effectiveness of the calculation project manager, project communications, and progress and monitoring efforts associated with the project.

The inspectors reviewed the corrective actions and verified that the issues were adequately addressed. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-005	Validate and Integrate Calculations and Setpoints	9

This step consisted of preparing a semi-annual progress report on the calculation review and reconstitution project by the 1st quarter of 2005. The licensee added CA060565 to the scope of this action step to provide closure to the issues identified during the review of Action Step 8.

Implementation of Action Plan Action Step

The licensee completed the semi-annual progress report on February 4, 2005, meeting the action step commitment. At the time the progress report was written, OP-14-005.3, the action step to identify the initial population of calculations to be reviewed, was the only action step completed. The report also noted that an internal effectiveness review conducted by Nuclear Oversight (NOS–quality assurance) identified a number of concerns in the areas of project interface and communications. As a result, a full-time project manager was assigned to rectify the issues. In addition, the progress report stated that the previously projected completion date of the 2nd quarter of 2005 was no longer achievable due to the unforseen interdependency of some calculations which required those associated activities to be performed in series. A review of some calculations had also shown that additional information was required that could only be collected during an outage, or had a long lead time.

Subsequent to this progress report, in the March 31, 2005, letter to the NRC, the licensee revised the completion dates associated with this action plan to no longer require completion of the calculation project by the 2nd quarter of 2005. The licensee completed the Action Plan Action Step (Step 9) as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Steps
OP-14-007	Updated Vendor Technical Information Program (VTIP)	5, 8

These steps consisted of performing an effectiveness review of the implementation of CA033416 which assigned VTIP responsibilities to the Configuration Management Group, and a review of the corrective actions for issues identified during a self-assessment of the VTIP program.

Implementation of Action Plan Action Step

Identified weaknesses with the licensee's VTIP program in a self-assessment, prompted the licensee to commit to, and assign, VTIP responsibilities to the Configuration Management Group and to strengthen the program. The effectiveness review, conducted in May 2005, concluded that actions taken as part of the Action Plan were fully effective. The inspectors interviewed personnel, including the recently appointed VTIP coordinator, and reviewed the following: VTIP procedures, corrective action documents, VTIP tracking database, the handling of Westinghouse bulletins; and the VTIP training package. The inspectors concluded that the assignment of VTIP responsibilities to the Configuration Management Group and the enhancements made to the program have been effective. However, concerning VTIP training, the inspectors identified that the training for engineers was one-time only. The licensee generated CAP065982 to provide elements of the VTIP training package to new engineering personnel to improve sustainability of an effective VTIP program. The licensee

completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
EQ-15-011	Bolted Fault	5

This step consisted of completing and approving the calculation portion of the Bolted Fault project. The March 31, 2005, CAL commitment update letter to the NRC discussed the basis for changing the previous commitment completion date for the calculation portion of the project to the 3rd quarter of 2005.

Implementation of Action Plan Action Step

The inspectors verified that the project step was progressing in accordance with the established schedule and was on track to be completed by the revised completion date. The inspectors did not identify any issues regarding the progress on this action step. The NRC will continue to review the completion of this step during a future inspection.

Action Plan	Title	Step
EQ-15-011	Bolted Fault	16

This step consisted of completing an interim progress review of the Bolted Fault project following the Spring 2005 Unit 2 refueling outage.

Implementation of Action Plan Action Step

The purpose of the interim progress report was to confirm that all work scheduled for completion by the 2nd quarter of 2005 was successfully completed and that the project was on track in accordance with the schedule committed to in the March 22, 2004, letter to the NRC. The licensee stated in this letter that by the end of the 2nd quarter of 2005, action steps EQ-15-011.1, 3, 4, 5, 8, 12, 15, and 16 would be completed and that steps EQ-15-011.2, 6, and 7 would be partially completed.

The inspectors verified that the licensee had performed the steps listed for completion by the 2nd quarter of 2005 and that the in-progress goals had been met for those steps listed for partial completion. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
EQ-15-012	Manhole and Cable Vault Flooding	9

This Excellence Plan Action Plan was created to address the issue of ground water intrusion into electrical cable manholes. The plan specified the installation of

permanent sump pumps in manholes 1 and 2 and the monitoring of the effectiveness of the pumps.

Implementation of Action Plan Action Step

The licensee performed an effectiveness review (EFR031055) of the modification to install sump pumps in the manholes. This EFR was evaluated by the NRC and discussed in IR 05000266/2004011; 05000301/2004011. At that time, the EFR concluded that the performance of the sump pumps were effective and sustainable. The inspectors questioned the conclusion, noting that the cause of two malfunctions had not been identified and corrected. The EFR was subsequently revised to conclude that the sump pump performance had not been fully effective in resolving the manhole and cable vault flooding issues.

The licensee's failure analysis results found that the current design of the sump pumps in manholes 1 and 2 was inadequate. Options to resolve the manhole flooding issue were presented at the Plant Health Committee (PHC) on March 15, 2005. The PHC approved the recommendation to replace the existing sump pumps with effluent pumps and to hard-wire the motors to the ground fault breaker. Installation of modification MR 05-004, "Replace Sump Pumps in Manholes 1 and 2," was scheduled to be completed by the 4th quarter of 2005. An additional effectiveness review for Action Plan EQ-15-012 (Step 12) was added, with a due date of June 14, 2006 (to allow for adequate run time for the new pumps). The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
EQ-15-016	Determine Condition of Underground Electrical Cables Which Have Been Submerged	6

This step required that the effectiveness of Action Plan Steps 1-4 (of the submerged cable project) be assessed. Action plan EQ-15-016 was established to address the concern that underground medium voltage cables (480-Vac, 4160-Vac, and 13.8-kVac) that were safety-related may have been degraded due to frequent submergence in water. This plan consisted of Steps 1-4 and 6 (Steps 5 and 7 were deleted in Revision 2 to the Excellence Plan). Therefore, the purpose of this EFR was, in effect, to review the completion and effectiveness of the entire submerged cable action plan.

Implementation of Action Plan Action Step

Engineering performed an effectiveness review (EFR031101, Revision 1) dated June 3, 2005. This EFR verified that the following steps were completed:

- Funding obtained for testing
- Cables were identified and testing method determined

- Cable condition was determined and documented in the cable condition monitoring reports
- Call-ups were established for future condition monitoring

Testing of applicable cables was performed in 2003 and second round testing of some cables had been completed as of this NRC inspection. The results of testing to date indicated that while some deterioration has occurred, no cables needed replacement. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
TR-18-002	Engineering Support Personnel (ESP) Training	11

This step performed an effectiveness review of the ESP training program.

Implementation of Action Plan Action Step

Engineering developed a listing of ESP core qualifications based upon engineering position, an ESP on-the-job mentoring program to support timely engineering qualification, and the continued need to meet industry accreditation requirements. Review of the results of program improvements noted that there was a significant decrease in training missed from 2003 to 2004. The monthly Engineering Support Training Program Effectiveness report continued to track and trend the training program and should provide early warning for any decline in acceptable performance. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

2. Area of Regulatory Concern: Engineering/Operations Interface

a. Inspection Scope

The inspectors reviewed the following completed Excellence Plan Action Plan Action Steps associated with the CAL engineering/operations interface area of regulatory concern. The review included documents included in the Action Step closure packages, other plant documents, and interviews of personnel.

b. Observations

Action Plan	Title	Step
OR-08-017	Improve Operations Department and Engineering Department Interface	5

This step established the goal of reducing the number of operable but degraded/non-conforming backlog per Action Plan OR-08-016.

Implementation of Action Plan Action Step

The licensee established a performance measure that stated the number of operable but degraded/non-conforming conditions will be reduced to less than 21 by September 2004. The licensee accomplished the goal in June 2004 when the number was reduced to 14. Performance remained within goal until April 2005, when the total number of operable but degraded/non-conforming conditions increased to 21. The licensee initiated CAP064315 to investigate the increase and attributed the cause to plant personnel exhibiting a stronger questioning attitude and several items being delayed as a result of outage schedule changes. The performance measure returned to within goal during May 2005 and, at the time of inspection, the operable but degraded/non-conforming list had 19 items. The inspectors reviewed the operable but degraded/non-conforming list, the list of open operability issues older than 1 cycle, the list of temporary modifications, and applicable supporting documents to confirm that the licensee's goal was being met. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

3. Area of Regulatory Area of Concern: Corrective Action Program

a. Inspection Scope

The inspectors reviewed the following completed Excellence Plan Action Plan Action Steps associated with the CAL corrective action program area of regulatory concern. The review included documents included in the Action Step closure packages, other plant documents, and interviews of personnel.

b. Observations

Action Plan	Title	Step
OR-02-001	Nuclear Oversight Effectiveness	7.E

This step consisted of performing an effectiveness review of NOS with respect to implementing Steps 1-6 of this Action Plan. This Action Plan was implemented to improve the effectiveness of NOS in identifying issues, effectively communicating the issues to management, improve NOS staffing, and ensuring timely corrective actions to address findings.

Implementation of Action Plan Action Step

This Action Plan step was previously reviewed by the NRC and documented in IR 05000266/2004011; 05000301/2004011. This review documented that the effectiveness review scope (EFR030281) did not align with the Action Plan problem description objectives and causal factors. The licensee issued CAP060651 to address these discrepancies.

During the current inspection, the NRC inspectors reviewed Revision 2 of EFR030281 and determined that it properly addressed the above issues. The effectiveness review

concluded that the completed actions resulted in an improvement in NOS performance and that no repeat areas for improvement as identified in the June 2003 self-assessment were noted. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OR-05-008	AFW Root Cause Evaluation (RCE) Corrective Actions	5

This step consisted of the final effectiveness review of the over 120 corrective actions associated with the three RCEs (RCE000069, RCE000191, and RCE0000202) that had been conducted by the licensee in 2002 and 2003 for the two Red findings for the AFW system. An interim effectiveness review had been conducted by the licensee and reviewed during a previous NRC inspection (IR 05000266/2004011; 05000301/2004011).

Implementation of Action Plan Action Step

The effectiveness review (EFR055862), conducted from March 21 through April 29, 2005, concluded that, overall, the corrective actions taken had been effective to correct the problems and prevent recurrence. The inspectors evaluated the methodology used by the licensee for the effectiveness review, reviewed all of the corrective actions to prevent recurrence (CATPRs) for timeliness and adequacy, and reviewed approximately 20% of the remaining corrective actions (the lower level "quick fix" type) to determined if these actions were completed and were reasonable. In addition to reviewing the effectiveness review, the inspectors reviewed numerous other documents in the Action Step closure package, interviewed plant personnel, and conducted walkdowns of the auxiliary feedwater system.

The effectiveness review represented a well-planned and implemented effort for a significant and complicated task. Overall, the inspectors found the effectiveness review methodology reasonable and corrective actions were timely and effective to correct and prevent recurrence of the problems that resulted in the two Red findings and to correct the additional problems identified in the RCEs. Notwithstanding the inspectors' conclusion on the overall adequacy of the effectiveness review, several observations and issues were identified by the inspectors, as discussed below.

- It took about two years after initiation of the corrective action program documents (CATPRs) to provide training to operators and engineering on several risk significance systems/system interactions. This length of time appeared excessive to the inspectors.

- One of the CATPRs was developed to ensure engineering department involvement in the EOP process that was the overall responsibility of the operations department. Engineering would conduct the design basis reviews and risk assessments before operations changed the EOPs. According to plant staff, operations would notify engineering via e-mail of a proposed change to an EOP. If no response was obtained from engineering, the proposed change was

made final. This lack of a formal agreement to a proposed change was similar to the inspectors' observation with approvals of EOP setpoint changes discussed earlier in Section 2.1, under Action Plan OP-14-005, "Validate and Integrate Calculations and Setpoints," Step 2.E. The licensee wrote CAP066016 to address this item.

- A CATPR was written to ensure that an evaluation of several potential common mode failures would be conducted. Among the potential common mode failures was crimping of the common AFW recirculation line from where it exited the seismic AFW pump room and traversed a portion of the non-seismic turbine building to the non-seismic CSTs. A subsequent detailed design review of AFW by a contractor team in mid-2003 also indicated that crimping was a potential common mode failure. However, the licensee eventually concluded that crimping of this line was not credible.

  The inspectors were concerned that, since the licensee was crediting the nonsafety-related recirculation line with performing a safety function (to pass required AFW pump cooling flow) in a nonsafety-related area, crimping should be evaluated as a failure mode unless it could be shown that the line was not susceptible. The licensee documented the inspectors' concern in CAP066199 and subsequently formally evaluated the issue, Engineering Evaluation 2005-0012, "Auxiliary Feedwater Recirculation Line Crimping Evaluation," August 17, 2005, and Operability Recommendation OPR000148, August 19, 2005.

  From their initial review of these documents, the inspectors identified several errors and several questions, which were communicated to the licensee. Because the licensee was still addressing the errors and questions by the end of inspection, the concern with the crimping of the recirculation line will be tracked as an Unresolved Item URI 05000266/2005011-01; 05000301/2005011-01. Because of the very low initiating event frequency of the earthquakes and tornados that could result in a crimp of the recirculation line there appeared to be no immediate safety concern.

- The inspectors identified a finding for a modification made by the licensee to the AFW system in late 2002, when the internal components of a check valve in the common recirculation line were removed to address a licensee-identified concern that failure of the valve could render all four AFW pumps inoperable. This finding is discussed further in Section 3.4

The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Steps
OP-10-004	CAP Resolutions Effectively Address Problems	15,15.A

Step 15, a CAL commitment step, consisted of NOS assessing procedure compliance and effectiveness of the Issue Manager program.

Implementation of Action Plan Action Step

The assessment was conducted as committed and identified problems with the Issue Manager program, which was being implemented by procedure NP 1.1.11, "Issue Manager." The licensee subsequently re-evaluated the need for the program and then incorporated the issue manager concept into another procedure, NP 1.1.12, "Operational Decision Making Issue." The licensee informed the NRC of the change to the commitment in a letter dated November 23, 2004.

Step 15.A, a non-commitment step, was added to the OP-10-004 Action Plan and consisted of NOS assessing procedure compliance and effectiveness of the issue manager program as now incorporated in NP 1.1.12. The assessment concluded that the program was being effectively implemented.

During the current inspection, the inspectors concluded that the assessments conducted for Steps 15 and 15.A were appropriate and that the licensee completed Action Plan Action Step 15 as committed in the March 22, 2004, letter and as incorporated in the CAL. The licensee's overall implementation of the Operational Decision Making Issue program was previously reviewed by the NRC and determined to be acceptable (IR 05000266/2005014; 05000301/2005014).

Action Plan	Title	Step
OP-14-001	Improve the Configuration Management Program	11.A

This step required that the number of modifications "accepted but not closed" backlog be reduced to comply with NP 7.2.15, "Fleet Modification Process." Section 3.8.1 of this procedure required that modifications be closed out within 90 days of acceptance.

Implementation of Action Plan Action Step

In April of 2004, a total of 44 modifications in the backlog were "accepted but not closed" and exceeded the procedural 90-day closure requirement. The licensee retrained modification owners in the use of procedure NP 7.2.15 and stressed the necessity of compliance with respect to the 90-day close out requirement. The modification spreadsheet was maintained on a weekly basis to ensure that modification owners and supervisors were kept aware of the backlog. From February through June 2005, there had been no accepted modifications exceeding the 90-day closure requirement and the total backlog has been maintained at 6 or less. The "Timeliness of Modification Closure" performance indicator was maintained on a monthly basis. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

Action Plan	Title	Step
OP-14-001	Improve the Configuration Management Program	15

This step required that specific performance indicators (PIs), standards, or health reports be developed for design engineering programs including calculations, setpoint control, vendor manuals, and piping analyses.

Implementation of Action Plan Action Step

The licensee reviewed existing PIs, standards, and health reports as well as benchmarking PIs from other plants. Existing PIs and health reports included the following items related to design engineering programs:

- Quality Review Team Directed Rework PI
- Drawing Revision Backlog PI
- Timeliness of Modification Closure PI
- Vendor Technical Information Health Report

The following items related to design engineering programs were created:

- Q-List Equipment Scoping Backlog PI
- Design Basis Documents Health Report

Procedures NP 7.2.4, "Calculation Preparation, Review and Approval," Revision 11, and NP 7.3.8, "Instructions for Making Changes to PBNP Setpoint and EOP Setpoint Documents," Revision 6, contained standards for calculations, set point control, and piping analyses (i.e.,calculations). The QRT reviewed examples of these engineering products and graded the relative quality of the product. The QRT review results were distributed within engineering as a quality feedback tool. Additionally, the licensee's corrective action program document (CAP) trending program would be expected to identify any programmatic issues. Based on the existing standards, programs, and PIs, along with the newly developed Q-List Equipment Scoping Backlog PI and Design Basis Documents Health Report, no new PIs or health reports were deemed necessary for calculations, setpoint controls, or piping analyses. The licensee completed the Action Plan Action Step as committed in the March 22, 2004, letter and as incorporated in the CAL. The inspectors did not identify any significant problems with actions taken to complete this step.

3. Non-CAL Specific Engineering Issues

.1 Licensee Review of Vendor Calculations and Analyses

a. Inspection Scope

The inspectors reviewed the licensee's processes for reviewing and accepting engineering products from outside organizations and assessed other functions of station design engineering. Areas of specific focus were calculations, design and modification packages, and spare parts equivalency evaluations. The inspectors reviewed a sample

of vendor calculations associated with Step 2.D of Action Plan OP-14-005, "Validate and Integrate Calculations and Setpoints." The inspectors also reviewed the licensee's methods for review and approval of internally generated design documents. For this inspection effort, the inspectors reviewed numerous plant documents, including plant and corporate procedures and completed calculations, and interviewed licensee personnel.

b. Observations

No findings were identified. In general, the licensee did not take a consistent approach to the review and approval of design documents. The approach appeared to be reactive rather than proactive with regard to expected and performed levels of review and attention to engineering products. The plant relied heavily on outside engineering firms to research and validate licensing, design, and engineering basis inputs to critical analysis. The plant qualified its vendors to station engineering procedures and then expected the vendor to determine appropriate design and license basis inputs and assumptions. Due to the complexity of plant design and licensing bases and the history of changes at Point Beach, there existed the potential for a less than complete compilation of design inputs.

The licensee had established a rigorous approach to oversee the vendor calculation reconstitution project, whereby plant engineers reviewed the calculations when they were 30 percent, 60 percent, and 90 percent complete. In brief, the 30 percent review encompassed a detailed review of scope, design, and licensing inputs, assumptions, and calculation methodology; the 60 percent review was primarily an in-process review to verify that the method was producing meaningful and reasonable preliminary results; and the 90 percent review was the official owner's acceptance review. In general, for the calculations reviewed from the calculation project, the inspectors found that licensee reviews were performed in accordance with procedures throughout the calculation preparation, review, and approval process. The inspectors attended a routine weekly teleconference between licensee representative and a calculation project vendor and it was apparent that the establishment and development of the project organization and expectations were in the development stage, and that the two groups were working through implementation difficulties. Except for the concern discussed earlier in the inspection report for Step 2.E of Action Plan OP-14-005, "Validate and Integrate Calculations and Setpoints," the inspectors did not identify any significant issues during their review of calculations. The inspectors noted, however, that the level of oversight in the calculation project was not generally applied to other vendor-supplied calculations, and other vendor-supplied engineering analyses. This duality of standards could result in confusion and inconsistency in the development and review of engineering products, both by plant staff and by vendors.

The inspectors also noted that the backlog of engineering products was not large, except for a fairly large number of proposed plant modifications that were on hold. The reason for the large backlog appeared to be due to the need for the design engineering staff to support the calculation reconstitution project, the Generic Safety Issue (GSI)-191 Project (regarding the containment accident recirculation sump), as well as routine plant and design issues. The inspectors also noted that the procurement engineers in the parts and equipment supply group had not been qualified on the site's spare part

equivalency determination process (SPEED) and had recently received limited training on the configuration control process. These observations were acknowledged by the licensee.

The inspectors noted that there were three significant engineering efforts ongoing: 1) the calculation reconstitution project, 2) the Unit 1 reactor vessel head replacement project and outage support, and 3) the GSI-191 design, analysis, and modification project. Each represented significant challenges to the engineering organization in the form of fully understanding the plant design and licensing bases, the shear volume of engineering tasks to be performed, and the necessary oversight of numerous outside organizations. These challenges were directed at a staff with, in some cases, a lack of technical depth.

.2 Review of Licensee's Corrective Action for Unit 2 HAUP Engineering Issues

a. Inspection Scope

During NRC review in spring 2005 of the licensee's vendor design documentation that supported the modification and installation of the Unit 2 reactor vessel head assembly upgrade package (HAUP), the inspector identified technical concerns for which the licensee wrote CAPs to address (IR 05000266/2005004; 05000301/2005004). As a result, the licensee wrote an additional CAP to assess a potential adverse trend of its vendor's engineering products related to the HAUP. As part of corrective actions, the licensee performed an apparent cause evaluation, as did the licensee's HAUP design vendor. During the current inspection, the inspectors reviewed some of the licensee's corrective actions. Included in this inspection activity was a review of pertinent records and interviews of engineering staff.

b. Observations

No findings were identified. The inspector noted that the licensee's apparent cause evaluation and the HAUP vendor's apparent cause evaluation were limited to NRC concerns that were identified during the Unit 2 spring 2005 outage. However, the licensee had provided for a third-part vendor to review HAUP design calculations who had identified technical concerns. These concerns were reconciled in subsequent calculation revisions prior to the NRC inspection of the HAUP calculations. The apparent cause of these concerns had not been assessed in the licensee's apparent cause evaluation.

The inspector made the following observations regarding the licensee's review of vendor calculations and the licensee's corrective actions as a result of the NRC's review of the Unit 2 HAUP design documentation:

- The licensee's requirements in procedure NP 7.2.4, "Calculation Preparation, Review, and Approval," pertaining to vendor calculations identify and reconcile concerns in individual calculations. Programmatic concerns regarding the vendor's calculation preparation, review, and approval processes were not readily apparent in a review of an individual calculation.

- Procedure NP 7.2.4 did not require that vendor calculation technical concerns with vendor-supplied calculations be addressed by the licensee's corrective action process. As a result, licensee-identified vendor calculation technical concerns were not trended as to their technical or programmatic significance. Had the licensee reviewed and assessed quality concerns identified during its vendor review of the HAUP design documents, vendor programmatic concerns related to the preparation, review, and approval of calculations may have been identified and corrected by the vendor prior to the NRC Unit 2 inspection activities.

- The licensee's apparent cause evaluation did not consider technical concerns identified during its owner's acceptance review of the HAUP calculations. The concerns identified and corrected during this review process represented a larger database of technical concerns similar to NRC-identified concerns.

- The same vendor was utilized for the reactor vessel HAUP installed at the NMC's Prairie Island Nuclear Generating Plant Unit 2 (IR 05000282/2005004; 05000306/2005004, Section 4OA5.6). The inspector did not identify documentation that Point Beach personnel interfaced with their Prairie Island counterparts to assess the technical quality of its respective vendor design calculations. Had the identified technical concerns been combined and trended, an opportunity may have existed to identify and correct quality issues prior to NRC inspection activities.

.3 Failure of Test of AFW From Local Control Switches

a. Inspection Scope

The inspectors reviewed the circumstances of a test performed on July 19, 2005, where the air-operated AFW minimum recirculation valve for a motor-driven auxiliary feedwater (MDAFW) pump did not automatically open in the local operating mode. This failure was reported (on July 20) by the licensee in accordance with 10 CFR 50.72.

b. Findings

Introduction: A Green finding associated with a Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the failure to have an appropriate procedure to assure proper operation of the MDAFW minimum recirculation valves when operating the AFW system from outside the control room using local panels N-01 and N-02. As a result, if the licensee had to perform abnormal operating procedure (AOP)-10, "Control Room Inaccessibility," Revision 3, minimum recirculation valves AF-4007 and AF-4014 would not have opened when the MDAFW pumps were started without the discharge valves open. This could have caused pump damage within one to two minutes.

Description: On July 19, 2005, the licensee performed a first time test to verify the proper functioning of the control circuitry and the instrumentation at alternate cabinets N-01 and N-02 for the AFW system. During the performance of 0-PT-AF-003, "Test of

Motor-Driven Auxiliary Feedwater Pumps Local Control Switches," Revision 0, the recirculation valve did not open when the pump was locally started. Operators immediately shut down the pump and the test was suspended. The licensee's investigation determined that taking the pumps to local control at cabinets N-01 and N-02 disabled the expected opening of the recirculation valve when the pump was started.

Local panel operation of the MDAFW pumps was required for the performance of AOP 10, "Control Room Inaccessibility," Revision 3, which would be used if the control room were evacuated for toxic gas, a confirmed bomb threat, or other life threatening condition. AOP 10 instructed operators to start the turbine-driven auxiliary feedwater pumps and place the MDAFW discharge valves in the closed position and place the switch in pullout to defeat the automatic start of the MDAFW pumps before leaving the control room. If steam generator level could not be maintained using the turbine-driven pumps, operators were to locally start the MDAFW pumps from alternate cabinets N-01 and N-02. Because the MDAFW discharge valves were closed, and local panel logic defeated the recirculation valve opening with the MDAFW pump start, the pumps would likely be damaged before the procedure directed the operators to open the discharge valves. The licensee took prompt corrective action to revise procedure AOP-10.

Analysis: The inspectors determined that the failure to verify that procedure AOP-10 would ensure proper operation of the MDAFW system was a licensee performance deficiency warranting a significance evaluation.

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 inspectors evaluated the finding using IMC 0609, Appendix A, which indicated that a Phase 2 evaluation was necessary because the finding represented a loss of AFW system safety function under certain abnormal plant conditions. However, because procedure AOP-10 was used when the control room was evacuated with no Appendix R fire and no other accident conditions, a Phase 2 evaluation was not applicable. Instead, the regional Senior Reactor Analyst performed a Phase 3 evaluation. The Phase 3 evaluation characterized the issue as Green based on the low initiating event frequency (evacuation of the control room for reasons other than an Appendix R fire) coupled with the accident mitigation available from the turbine-driven AFW pumps and feed and bleed capability.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that the licensee accomplish activities affecting quality in accordance with instructions and procedures appropriate to the circumstances. Contrary to this, as of July 19, 2005, the licensee did not ensure that procedure AOP-10, "Control Room Inaccessibility," Revision 3, was appropriate for proper operation of the AFW system from local control panels N-01 and N-02. Specifically, minimum

recirculation valves AF-4007 and AF-4014 would not have opened, as expected, with the local start of the two MDAFW pumps and would likely have caused pump damage before operators could open the pump discharge valves. Therefore, the inspectors determined this finding was a violation of Criterion V, "Instructions, Procedures, and Drawings." Because this violation was of very low safety significance, non-willful, non-repetitive, and documented in the licensee's corrective action program (as CAP065843), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy (NCV 05000266/2005011-02; 05000301/2005011-02).

The licensee took immediate corrective action to revise procedure AOP-10.

.4 10 CFR 50.59 Evaluation for a 2002 Modification

a. Inspection Scope

As discussed earlier in Section 2.3.b for Step 5 of Action Plan OR-05-008, "AFW Root Cause Evaluation (RCE) Corrective Actions," the inspectors identified a finding associated with a 2002 modification to the AFW system. The finding was identified during a review of documentation associated with the closure package for Step 5, an effectiveness review of the corrective actions for the RCEs for the two AFW Red findings.

b. Observations

Introduction: A Severity Level IV, NCV was identified by the inspectors involving the licensee's failure to perform a safety evaluation, as required by 10 CFR 50.59, associated with the removal of the internals of the AFW common recirculation line check valve, AF-117.

Description: In September 2002, the licensee completed modification MR 02-029, "Auxiliary Feedwater [AFW] Mini Recirc Line Safety Upgrade, Removal of AF-117 Internals," to meet commitments to the NRC to classify the function of the AFW recirculation line air-operated valves (AOVs) to open as safety-related and to specify that the recirculation line was required for operability of the four AFW pumps. As part of the modification, the internals of AF-117, the AFW common recirculation line check valve, were removed to eliminate a possible common mode failure. This check valve was located near the CSTs in a portion of the recirculation line that was common to all four AFW pumps and, if the valve failed closed, it could result in the failure of one or more of the four AFW pumps due to the loss of required pump cooling recirculation flow.

To allow the work to be done on AF-117, the licensee closed AF-1, the AFW common recirculation line isolation valve, to isolate the recirculation flow to the CSTs. The licensee maintained AFW system operability by crediting the operation of a relief valve, located upstream of AF-117 and AF-1, as a means of maintaining a flow path for the AFW recirculation line. The relief valve, AF-4035, was a nonsafety-related, non-Code valve that was not included in the licensee's inservice testing program and had not been tested since the valve was installed in 1988 as part of another modification (MR 88-099). As part of the work on AF-117, the licensee recognized that the relief valve was not safety-related and established several compensatory measures, such as stationing a

dedicated operator to monitor AF-4035, while the normal path to the CSTs was isolated. This operator was to inform the control room operators if AF-4035 failed to lift if a AFW system actuation occurred. If the valve failed to open, then the control room operators would ensure forward flow be maintained through each AFW pump or would secure the pump. As part of the development of modification MR 02-029, a 10 CFR 50.59 screening (SCR 2002-0377) was conducted to determine if a 10 CRF 50.59 safety evaluation. This screening determined that an evaluation was not required.

The inspectors reviewed this screening and concluded that the determination was in error. The inspectors reviewed whether the licensee was following the guidance contained in Nuclear Energy Institute (NEI) 96-07, "Guidelines for 10 CFR 50.59 Implementation," Revision 1, which is endorsed by Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," November 2000, as a means of complying with 10 CFR 50.59. The NEI 96-07 guidance states that 10 CFR 50.59 should be applied to temporary procedure changes proposed as compensatory actions to address degraded or non-conforming conditions. The item proposed was a "change" as described in the Final Safety Analysis Report since, in accordance with 10 CFR 50.59(a)(5), it changed how "structures, systems and components are operated and controlled (including assumed operator response times)." Concerning the screening process, NEI 96-07 guidance states, "The screening process is not concerned with the magnitude of adverse effects that are identified. Any changes that adversely affects a design function, or method of performing or controlling a design function shall be considered adverse and the applicable question answered YES." The NEI 96-07 guidance further provided examples of items which would be considered adverse effects and should be screened in. Several of these examples directly applied to the relief valve situation: "Does the change add or delete an automatic or manual feature of the SSC [system, structure, or component]..." and "Does the change impact the timing of critical actions (i.e., are manual operator actions being substituted for automatic functions)?"

In this case, an automatic passive design feature of this SSC (the recirculation line) was being made unavailable and the function was being changed to operation of an untested, nonsafety-related, active component (AF-4035) and it was being supplemented through the use of manual operator actions. Therefore, according to the NEI 96-07 (and the licensee's procedure), this met the threshold of an adverse affect on the design function of the AFW system and the "change" would be required to be screened in.

The licensee had suggested that the 10 CFR 50.59 evaluations done as part of the review and acceptance of several AOPs and EOPs was sufficient to address the system configuration during the removal of the check valve internal components. The inspectors noted that the fold-out sheet of the appropriate procedures provided guidance to operators to monitor and ensure forward flow through the AFW pumps to ensure adequate cooling; however, several procedures, including AOP-5B (Loss of Instrument Air) and AOP-10A (Control Room Fire) assumed a loss of instrument air to each pump's recirculation flow control air-operated valve. Because instrument air to the recirculation line air-operated valve was not isolated during the removal of the check valve internal components, the applicable AOPs would not have been entered for events where instrument air was operable.

Analysis: The inspectors determined that the licensee's determination that a 10 CFR 50.59 safety evaluation was not required for the AFW system lineup required to complete MR 02-029 was a performance deficiency warranting a significance evaluation. Because this is a violation of 10 CFR 50.59, it is considered to be a violation which potentially impedes or impacts the regulatory process. Therefore, such violations are dispositioned using traditional enforcement process instead of the Significance Determination Process. In this case, the licensee failed to perform a safety evaluation in accordance with 10 CFR 50.59 for adverse changes made concerning the function and operation of all four AFW pumps.

This finding was determined to be more than minor because the team could not reasonably determine that the original change would have ultimately required NRC approval. The inspectors completed a Significance Determination Review using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At Power Situations." Using the Phase I Screening worksheet the finding was determined to be of very low safety significance (Green) since the finding did not represent an actual loss of safety function for greater than the Technical Specification allowed outage time. Comparing this item to the examples in NUREG 1600, Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that do not involve circumstances in which a change that required prior Commission approval would not be found acceptable had the approval been sought."

Enforcement: 10 CFR 50.59(d)(1) states, in part, that the licensee shall maintain records of changes in the facility, of changes in procedures, and of tests and experiments. These records must include a written evaluation which provides the basis for determination that the change, test, or experiment does not require a license amendment. Contrary to the above, the licensee approved a plant modification that introduced adverse affects for the auxiliary feedwater system to perform its designed safety function and failed to perform an adequate safety evaluation in accordance with 10 CFR 50.59.

The results of this violation were determined to be of very low safety significance. This violation of the requirements of 10 CFR 50.59 was classified as a Severity Level IV Violation. Because this non-willful violation was non-repetitive, and was captured in the licensee's corrective action program (CAP066419), this violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 05000266/2005011-03; 05000301/2005011-03)

4OA6 Meetings

.1 Exit Meeting

On August 24, 2005, the inspectors presented the preliminary inspection results to Mr. Dennis Koehl and members of the Point Beach staff. The licensee acknowledged the observations and indicated that the completion dates of the corrective actions for the identified problems would be evaluated. 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 Violation

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

P. Anderson, Calculation Project Manager
D. Brown, Mechanical Engineer
T. Carter, System Engineering Manager
S. Cassidy-Smith, Communications Manager
R. Chapman, Mechanical/Structural Engineer
F. Flentje, Regulatory Affairs Principal Analyst
R. Flessner, Excellence Team Lead
K. Holt, Supervisor, Configuration Management
T. Kendall, Engineering Senior Technical Advisor
C. Lambert, NMC Vice President - Engineering
T. Lensmire, Electrical/Instrument and Control Design Engineer
M. Lorek, Plant Manager
J. Marean, Engineering Supervisor, Mechanical/Structural
J. McCarthy, Site Director of Operations
D. Peterson, Human Performance Coordinator
L. Peterson, Design Engineer Manager
S. Pfaff, Acting Performance Assessment Manager
J. Polacek, Engineer, Procurement Engineering
C. Richardson, Design Engineering - Mechanical
S. Ruesch, Procedures Manager
J. Schweitzer, Site Engineering Director
G. Sherwood, Programs Engineering Manager
W. Smith, Production Planning Manager
T. Vandenbosch, Senior Reactor Operator, Operations Planning and Scheduling
P. Wild, Design Engineering Projects Supervisor
B. Woyak, Design Engineering - Structural

Nuclear Regulatory Commission

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

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000266/2005011-01; 05000301/2005011-01	URI	Potential Vulnerability of AFW Recirculation Line (Section 2.3)
05000266/2005011-02; 05000301/2005011-02	NCV	Inadequate Procedure for Starting Motor-Driven AFW Pumps for Certain Control Room Evacuations (Section 3.3)
05000266/2005011-03; 05000301/2005011-03	NCV	No 50.59 Safety Evaluation for a 2002 Modification to AFW (Section 3.4)

Closed

05000266/2005011-02; 05000301/2005011-02	NCV	Inadequate Procedure for Starting Motor-Driven AFW Pumps for Certain Control Room Evacuations (Section 3.3)
05000266/2005011-03; 05000301/2005011-03	NCV	No 50.59 Safety Evaluation for a 2002 Modification to AFW (Section 3.4)

Discussed

None.

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.

Audit Report No. 2005-2130; Nuclear Management Company Audit of Prime Contractor for the Reactor Head Replacement Project - Kewaunee, Point Beach Units 1 and 2 and Prairie Island Units 1 and 2; June 2005

Point Beach Staff Comments (at the 30% completion mark) for All Calculations Approved Under CAL Action Item Step OP-14-005.2.D as of June 15, 2005

Design Interface Agreement - Calculation Review and Reconstitution Project

Project Plan - Calculation Review and Reconstitution Project

Design Engineering Backlog Report; June 2005

List of Modifications Complete But Not Closed Out; July 26, 2005

Calculation Review and Reconstitution Status Report; July 26, 2005

Modification 03-021; Reactor Vessel Lower Head Insulation; August 16, 2004

Modification 03-055; Auxiliary Cranes to Support Unit 2 Reactor Vessel Head Assembly & Disassembly; July 6, 2005

Program Health Status; Vendor Technical Information; May 18, 2005

Westinghouse Technical Bulletin TB-05-6, Retrofit of Printed Circuit Cards for 7300 Based Systems

Westinghouse Technical Bulletin TB-05-5, Updated Flux Rate Trip Setpoint Adjustment

Component Instruction Manual Technical Review Checklist No. 146, 480 Volt Switchgear, Transformers and MCC [Motor Control Center]

Operating Experience 22526, Request an [Operability Evaluation] of TB-05-5 Updated Flux Rate Trip Setpoint Adjustment

Westinghouse Technical Bulletin TB-0505, Apparent Activation of the Watchdog Timer Relay Contact

List of Open Degraded or Non-Conforming Issues; July 13, 2005

Temporary Modification TM-04-005, SEI: Auxiliary Feed Water Pump Room Seismic Event Annunciator

List of Open Operability Issues Older than One Fuel Cycle; July 26, 2005

Design Basis Document, DBD-10, Residual Heat Removal System Design Basis Document, Revision 4

Letter from Wisconsin Electric Letter to NRC, NRC Bulletin 88-04 - Potential Safety-Related Pump Loss; June 28, 1988

Letter from Wisconsin Electric Letter to NRC, Clarification of a Commitment Concerning Operation of the Safety Injection Pump and Residual Heat Removal Pumps; February 26, 1993

Letter from Pacific Pumps to Wisconsin Electric, Pacific Pumps Shop Order P45250 - Minimum Flow Requirements; December 8, 1987

MSSM 88-13; Manager's Supervisory Staff Meeting Minutes; June 7, 1988

NRC Bulletin No. 88-04; Potential Safety-Related Pump Loss

FSAR Section 6.2; Safety Injection System

Work Order No. 934672; Run Pump on [Minimum-Recirculation] So Site Engineering Can Take [Minimum-Recirculation] Flow Measurements

Work Order No. 934673; Check 2P-10B [Minimum-Recirculation] Flow to Verify No Blockage in the Recirculation Line

LER 92-003; One Train of Safety Injection and Containment Spray Inoperable

Wisconsin Electric Internal Correspondence, Summary of Unit 2 [Safety Injection/Residual Heat Removal/Containment Spray] System Flow Tests and Debris Inspections; November 4, 1992

MSSM 88-13, Manager's Supervisory Staff Meeting Minutes; November 24, 1992

Modification 88-097; Install a New Test Line for the Safety Injection and Residual Heat Removal Pumps

Calculations

97-0172; Available Water in Volume of Piping to the Auxiliary Feedwater Pumps Following Pipe Break at Elevation 25-6; Revision 2

97-0215; Water Volume Swept by All Four AFW Pumps Following a Seismic/Tornado Event Affecting Both Units; Revision 5

98-0020; Containment Recirculation Fan Motor Cooler SW Flow vs Temperature Requirements for Normal and Accident Modes of Operation; Revision 3

2002-0002; Nitrogen Backup System for MDAFP Discharge Valves (AF-4012/4019) and Minimum Flow Recirculation Valves (AF 4007/4014); Revision 3

2003-0062; AFW Pump NPSH [Net Positive Suction Head] Calculation and Condensate Storage Tank Required Fluid to Prevent Vortexing; Revision 2

2005-0001; Evaluation of Unit 2 Reactor Vessel Lift Rig Platform and Supports Due to Mounting of Articulating Jib Cranes & Zip Lift Cradle Hoist; March 3, 2005

2005-0001-A; Evaluation of Unit 2 Reactor Vessel Lift Rig Platform and Supports Due to Mounting of Articulating Jib Cranes & Zip Lift Cradle Hoist; May 12, 2005

2005-0011; AFW Thermal Hydraulic Flow Model; Revision 0

2005-0027; Auxiliary Feedwater Flows During Main Steam Line Break; Revision 0

M-09334-298-ECCS.1; ECCS [Emergency Core Cooling System] Proto-Flo™ Thermal Hydraulic Flow Model; Revision 4

N-88-049; CCW [Component Cooling Water] HX [Heat Exchanger] Overall Heat Transfer w/Seacure Tubing; Revision 2

WEP-SPT-20-02-A; Steam Generator Pressure EOP Setpoints

WEP-SPT-34; RHR [Residual Heat Removal] Flow Indication Uncertainty (F-626)

Engineering Evaluations

2003-0008; CCW [Component Cooling Water] HX [Heat Exchanger] Plugging Limit; Revision 3

2003-0036; Reactor Vessel Lower Head Insulation Replacement; March 15, 2004

2005-0012; Auxiliary Feedwater Recirculation Line Crimping Evaluation; August 17, 2005

Corrective Action Program Documents Issued Prior to the Inspection

CAP031002; Analysis for Auxiliary Feed Pumps [Differential Pressure] is Non Conservative for [In-Service] Test Criteria
CAP031201; Alternate Shutdown Transfer Switch Testing; February 19, 2003
CAP050388; [Emergency Operating Procedure Setpoint] L.3 and L.13 Existing Values are Non-Conservative
CAP050486; Feasability of Safe Shutdown Containment Entry Questioned
CAP050523; Certain Appendix R Fires May Challenge Operator Response
CAP058951; Westinghouse Technical Bulletin Not Processed by OE Program
CAP064911; Methodology for Combining Seismic and LOCA [Loss of Coolant Accident] Loads Documentation; June 2, 2005
CAP065153; Revisions to Westinghouse Calculations for the Head Replacement Project; June 15, 2005
CAP065156; Rework of Reactor Vessel Pipe Support; June 15, 2005
CAP065189; Calculation CN-RVHP-04-9 Acceptance Criteria Question; June 17, 2005

CAP065201; Revision to Westinghouse Calculation Required; June 17, 2005
CAP065202; Revision to Westinghouse Calculation Required; June 17, 2005
CAP065204; Revision to Westinghouse Calculation Required; June 17, 2005
CAP065257; Potential Trend Related to Westinghouse Engineering Products on RVCH Modification; June 21, 2005
CAP065950; PCRs [Procedure Change Requests] Are Being Inappropriately Submitted
A063797; Potential Trend Related to Westinghouse Engineering Products on RVCH Modification; June 22, 2005
ACE001886; Potential Trend Related to Westinghouse Engineering Products on RVCH Modification; June 23, 2005
CAPs-ACA-05-182-M025; Westinghouse Apparent Cause Analysis Report; July 8, 2005

Drawings

P-117; Aux Feedwater Pump Suction from Condensate Storage Tanks; Revision 11
P-118; Aux Feedwater Pump Suction from Condensate Storage Tanks 1-T24A&B; Revision 7
MSK00000263; Auxiliary Coolant System, Point Beach Nuclear Plant Unit 1; Revision 63

Procedures

AOP-10; Control Room Inaccessibility; Revision 3
AOP-10; Control Room Inaccessibility; Revision 4
NP 1.3.3; Component Instruction Manuals; Revision 5
NP 1.4.2; Permanent Drawing System; Revision 6
NP 5.3.7; Operability Determination
NP 7.2.4; Calculation Preparation, Review, and Approval; Revision 12
NP 7.2.10; Engineering Evaluation Preparation, Review and Approval; Revision 4
NP 7.2.12; Design Review Board; Revision 2
NP 7.2.13; Processing of Vendor Technical Information; Revisions 3 and 4
NP 7.2.14; Vendor Contract Program; Revision 3
NP 7.2.15; Fleet Modification Process; Revision 5
NP 7.2.16; Modification Process Definitions; Revision 0
NP 7.2.19; Design Inputs; Revision 0
NP 7.2.21; Design Description; Revision 0
NP 7.2.22; Design Verification and Technical Review; Revision 0
NP 7.2.26; Control of Design Interfaces; Revision 0
NP 9.3.3; Spare Parts Equivalency Evaluation; Revision 8
NP 11.3.17; Supplier Maintenance; Revision 2
OP 7B; Removing Residual Heat Removal System from Operation; Revision 36
OI 163; SI, RHR and CS Pump Runs and Venting SI Pump Casings; Revision 5
0-PT-AF-003; Test of Motor-Driven Auxiliary Feedwater Pumps Local Control Switches; Revision 0

Forms

QF 0509; FP-E-MOD-2, Modification Control Form; Revision 0
QF 0515A; FP-E-MOD-4, Design Input Checklist; Revision 2
QF 0515B; FP-E-MOD-4, Design Input Checklist; Revision 0
QF 0516; FP-E-MOD-4, Design Input Consultation Form; Revision 0
QF 0525; FP-E-MOD-6, Design Description Form; Revision 0

QF 0526; FP-E-MOD-7, Design Verification Assignment; Revision 0
QF 0527; FP-E-MOD-7, Design Review Checklist; Revision 0
QF 0528; FP-E-MOD-7, Design Review Comment Form, Revision 0
QF 0545; FP-E-MOD-11, Design Information Transmittal; Revision 0
QF 0546; FP-E-MOD-11, Design Interface Agreement; Revision 0
QF 0547; FP-E-MOD-11, External Design Document Suitability Review Checklist; Revision 0

Training Documents

Lesson Plan for ESI-02-LP010; Configuration Management; Revision 0
Training Slides for ESI-02-LP010; Configuration Management
Lesson Plan for PB-ESC-050-005L; Configuration Change Process; Revision 0
Lesson Plan No. ESC-04-LP012; Vendor Technical Information Program

Corrective Action Program Documents (CAPs) Issued as a Result of the Inspection

CAP065958; Improper Use of Teflon Tape on Stainless Steel Connections; July 25, 2005
CAP065982; Vendor Technical Information Program Training for New Engineering Personnel; July 26, 2005
CAP065973; Procedure Typo and Potential Weak Process Tie; July 26, 2005
CAP065980; Modification Database Not Updated; July 26, 2005
CAP065997; Ops Approved Signature Missing From EOP Calculation; July 27, 2005
CAP066016; Lack of Documentation Providing Engineering Acceptance of Proposed Procedure Changes; July 28, 2005
CAP066017; Program Enhancement to OM 4.3.3, EOP/AOP Verification and Validation Process; July 28, 2005
CAP066021; Consider Enhancing Design Processes for Vendor Supplied Products; July 28, 2005
CAP066028; ECA-0.0 Does Not Contain Guidance to Prevent TDAFP Runout; July 28, 2005
CAP066035; Potential Inadequate Comment Resolution on Calculations; July 28, 2005
CAP066060; Incomplete Update of AFW DBD; July 29, 2005
CAP066199; Evaluation of AFW Common Recirc Line Requires Additional Effort; August 5, 2005
CAP066274; RHR Pump Recirculation Flow Not Routinely Verified; August 9, 2005
CAP066330; Recommend Enhancing Inservice Testing Data Collection; August 11, 2005
CAP066343; Consider Stroke Timing MS-2082 Valves Under IST Program; August 12, 2005
CAP066354; Issues Noted Regarding Auxiliary Feedwater DBD; August 12, 2005
CAP066366; Adequacy of RH [Residual Heat Removal] Minimum Recirculation Flow; August 12, 2005
CAP066369; Procedure Enhancements Needed for Testing of MS-2019/2020 Valves; August 12, 2005
CAP066372; Evaluation of Potential for Auxiliary Feedwater Recirculation Line Crimp; August 13, 2005
CAP066419; Conclusion of 50.59 Screening SCR 2002-0377 Questioned by NRC; August 16, 2005
CAP066461; Minor Error in Engineering Evaluation 2005-0012 for AFW Pipe Crimp; August 18, 2005

LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agency Wide Access Management System
AFW	Auxiliary Feedwater
AOP	Abnormal Operating Procedure
AOV	Air-Operated Valve
CA	Corrective Action
CAL	Confirmatory Action Letter
CAP	Corrective Action Program Document
CATPR	Corrective Action to Prevent Recurrence
CE	Condition Evaluation
CFR	Code of Federal Regulations
CST	Condensate Storage Tank
DBD	Design Basis Document
DRP	Division of Reactor Projects
EFR	Effectiveness Review
EOP	Emergency Operating Procedure
ESP	Engineering Support Personnel [Training]
gpm	Gallons Per Minute
GSI	Generic Safety Issue
HAUP	Head Assembly Upgrade Package
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
kVac	Kilo-Volt Alternating Current
MDAFW	Motor-Driven Auxiliary Feedwater
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NMC	Nuclear Management Company, LLC
NOS	Nuclear Oversight (Quality Assurance)
NP	Point Beach Nuclear Plant Business Manual Procedure
NRC	Nuclear Regulatory Commission
OAR	Owner Acceptance Review
OTH	Other (type of document in the corrective action program)
PBNP	Point Beach Nuclear Plant
PHC	Plant Health Committee
PI	Performance Indicator
QRT	Quality Review Team
RCE	Root Cause Evaluation
RHR	Residual Heat Removal
RVCH	Reactor Vessel Closure Head
SDP	Significance Determination Process
SW	Service Water
URI	Unresolved item
Vac	Volt Alternating Current
VTIP	Vendor Technical Information Program