May 15, 2003

Mr. A. Cayia
Site Vice President
Point Beach Nuclear Power Plant
Nuclear Management Company, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
NRC SUPPLEMENTAL INSPECTION REPORT 50-266/02-14;
50-301/02-14(DRS)

Dear Mr. Cayia:

On April 15, 2003, the NRC completed a supplemental inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report presents the results of that inspection, which were discussed on March 7, 2003, with you and members of your staff, and on April 15 with Mr. G. Arent and other members of your staff following NRC's assessment of additional information submitted on March 19, 2003.

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

During a baseline NRC inspection conducted on February 11 through February 15, 2002, the NRC identified concerns regarding the adequacy of your staffs' critique of two performance issues during the biennial emergency preparedness exercise that was conducted on February 12, 2002. By correspondence dated September 12, 2002, you were notified that the NRC's final significance determination of this consolidated critique concern was a White finding (i.e., an issue with increased importance to safety which may require additional inspection) in accordance with the Significance Determination Process.

On November 15, 2002, your staff completed a root cause evaluation that should have identified the factors that contributed to the White finding on the critique of the February 2002 exercise. We were concerned that your staff considered an apparent cause evaluation to be sufficient following your receipt of the preliminary White finding in April 2002. We were concerned that your root cause evaluation was not initiated until late September 2002 following receipt of the White finding.

During the week of November 18 through 22, 2002, NRC conducted a supplemental inspection to provide assurance that the root causes and contributing causes that resulted in this White finding were understood, that the extent of condition was adequately identified, and that completed and planned corrective actions were sufficient to prevent recurrence.

However, during the November inspection, the inspectors determined that your initial root cause evaluation was inadequate. For example, the inspectors determined that your staff did not consider one of the listed root causes to be valid. The inspectors also identified discontinuities between the results presented in your initial root cause evaluation report and some concerns identified by the analytical tools used by your initial root cause evaluation team. Also, your initial root cause evaluation did not include an assessment of your Nuclear Oversight staff's ability to identify emergency planning issues, although Nuclear Oversight staff were typically among your drill and exercise observers. Finally, the inspectors identified that your staff appeared to have repetitive problems in understanding your Emergency Plan's licensing basis.

In response to the inspectors' November 2002 concerns, you requested the opportunity to revise your root cause evaluation of the White finding for the critique of the February 2002 exercise. Your staff also conducted an insightful root cause evaluation on why your initial root cause evaluation of the February 2002 exercise critique issue failed to meet expectations. Once your revised root cause evaluation on the February 2002 exercise critique issue was completed, NRC resumed the supplemental inspection during the week of March 3, 2003.

We concluded that your revised evaluation of the root causes and other causes, which were associated with the critique of the February 2002 exercise, was adequate. We also concluded that this revised root cause evaluation was systematic and conducted at the appropriate depth, and that your corrective actions were adequate.

Based on the results of this inspection, the NRC identified a violation of NRC requirements regarding a revision to your Emergency Plan's staff augmentation commitments that was made without prior NRC approval and which was in effect between October 1998 and late January 2003. The issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Point Beach facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (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/

Cynthia D. Pederson, Director
Division of Reactor Safety

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

Enclosure: Inspection Report 50-266/02-14(DRS);
50-301/02-14(DRS)

cc w/encl: R. Grigg, President and Chief
Operating Officer, WEPCo
John Paul Cowan, Chief Nuclear Officer
Licensing Manager
D. Weaver, Nuclear Asset Manager
Joseph Jensen, Plant Manager
Gordon P. Arent, Manager, Regulatory Affairs
Jonathan Rogoff, Esquire General Counsel
Mano K. Nazar, Senior Vice President
J. O'Neill, Jr., Shaw, Pittman,
Potts & Trowbridge
K. Duveneck, Town Chairman
Town of Two Creeks
D. Graham, Director
Bureau of Field Operations
A. Bie, Chairperson, Wisconsin
Public Service Commission
S. Jenkins, Electric Division
Wisconsin Public Service Commission
State Liaison Officer

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Cynthia D. Pederson, Director
Division of Reactor Safety

Docket No. 50-266; 50-301
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Enclosure: Inspection Report 50-266/02-14; 50-301/02-14(DRS)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-266; 50-301
License No:	DPR-24; DPR-27
Report No:	50-266/02-14; 50-301/02-14
Licensee:	Nuclear Management Company, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	6610 Nuclear Road Two Rivers, WI 54241
Dates:	November 6, 2002 through April 15, 2003
Inspectors	T. Ploski, Senior Emergency Preparedness Inspector S. Orth, Emergency Response Coordinator
Approved by:	Kenneth Riemer, Chief Plant Support Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000266-02-14(DRS); 05000301-02-14(DRS); on 11/06/02-04/15/03, Nuclear Management Company, Point Beach Nuclear Plant, Units 1 and 2. Supplemental Inspection - White finding.

Cornerstone: Emergency Preparedness

The U. S. Nuclear Regulatory Commission (NRC) performed a supplemental inspection to assess the licensee's evaluation associated with a White finding associated with the licensee's inadequate critique of two protective action decision making issues during its biennial emergency preparedness exercise conducted on February 12, 2002. This supplemental inspection was performed in accordance with Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area." During the November 2002 portion of this supplemental inspection, the inspectors determined that Revision 0 of the licensee's evaluation of the root causes and contributing causes of the February 2002 exercise's critique was inadequate (Section 02.2.a).

Consequently, the licensee requested an opportunity to revise its root cause evaluation, which was issued in January 2003. The NRC's supplemental inspection resumed in March 2003. The inspectors then determined that the licensee's revised root cause evaluation was adequate and that adequate corrective actions were initiated to prevent recurrence (Sections 02.2.b and 02.3).

REPORT DETAILS

01 Inspection Scope

This supplemental inspection was performed by NRC in accordance with Inspection Procedure (IP) 95001 to assess the licensee's evaluation of the root causes and other causes associated with a White finding. Specifically, during a February 2002 baseline Emergency Preparedness (EP) inspection (NRC Inspection Report Nos. 50-266/02-04; 50-301/02-04(DRS)), inspectors identified two issues regarding the licensee's critique of its participants' decision making on one offsite and one onsite simulated protective action during the biennial EP exercise that involved State and county officials' participation. An interim exit meeting and a final exit meeting were conducted with licensee management on February 15 and April 1, 2002, respectively. During the February 15 interim exit meeting, the licensee was informed of at least one preliminary finding regarding exercise critique inadequacies with respect to onsite and offsite protective action decision making. At the April 1 exit meeting, the licensee was informed that one preliminary White finding had been determined in accordance with NRC's Significance Determination Process for the EP Cornerstone, and that this preliminary finding encompassed both of NRC's issues on the critique of offsite and onsite protective action decision making during the February 2002 exercise.

At the request of licensee management, a Regulatory Conference was scheduled for June 25, 2002. On June 24, 2002, the licensee indicated that Nuclear Management Company (NMC) would submit additional information on the preliminary White finding rather than discuss this preliminary finding at the Regulatory Conference. As a result, the Regulatory Conference was canceled. Following assessment of the licensee's submittal, dated June 27, 2002, the licensee was notified of the final results of NRC's significance determination, which was a White finding, in a letter dated September 12, 2002.

During this supplemental inspection, inspectors evaluated the licensee's ongoing efforts to improve its critique capability by observing an EP drill and the drill's initial critique that were conducted in early November 2002. In mid-November 2002, inspectors assessed the licensee's initial (Revision 0) Root Cause Evaluation (RCE) number 000187 and reviewed a sample of documents that were referenced in this RCE. The inspectors identified inadequacies in Revision 0 of RCE 000187 that are summarized in Section 02.2.a of this inspection report.

As a result, the licensee issued a significantly upgraded Revision 1 to RCE 000187 in January 2003. Revision 2 of this RCE was issued in early March 2003 to correct an editorial error. Subsequent references to Revisions 1 and 2 of RCE 000187 in this supplemental inspection report are simplified as "the revised RCE 000187" unless otherwise specified.

The licensee also performed RCE 000194 to identify the root causes and other causes of the inadequate Revision 0 of RCE 000187. The inspectors reviewed and discussed the aforementioned revisions of RCE 000187 and RCE 000194, as well as samples of documents referenced in one or more of these RCEs, with cognizant licensee staff.

Since this supplemental inspection was conducted using IP 95001, the following details are organized by the specific inspection requirements of IP 95001, which are highlighted in italics in the following sections.

02 Evaluation of Inspection Requirements

02.1 Problem Identification

a. Determine that the evaluation identifies who (i.e., licensee, self-revealing, or NRC) and under what conditions the issue was identified.

The 2002 exercise critique's inadequacies were identified by NRC during a baseline EP inspection on February 11 through 15, 2002. The NRC provided the final significance determination that the inadequate critique was a White finding in a letter dated September 12, 2002. As summarized in Subsection 02.02 of this inspection report, inspectors identified inadequacies in Revision 0 of RCE 000187, dated November 15, 2002, during an supplemental onsite EP inspection on November 18 through 22, 2002. As a result, the licensee issued a significantly revised Revision 1 of RCE 000187 on January 21, 2003. Due to an editorial error, Revision 2 of RCE 000187 was issued on March 6, 2003.

The licensee also completed Revisions 0 and 1 of RCE 000194, "RCE 187 Did Not Meet Standards to Close NRC Inspection," in February and March 2003, respectively.

b. Determine that the evaluation documents how long the issue existed and prior opportunities for identification.

The revised RCE 000187's team concluded that the February 2002 exercise's critique problems were due, in part, to inadequate translation of some emergency plan commitments into the associated Emergency Plan Implementing Procedures (EPIP), and the failure to adequately understand and incorporate relevant criteria of the NRC-endorsed, Nuclear Energy Institute (NEI) 99-02 document into the Plan, EPIPs, and/or the EP drill and exercise critique process. The revised RCE 000187 did not specify when inconsistencies arose between a given emergency plan commitment and the relevant EPIP(s). Instead, the revised RCE's corrective actions included a planned validation review of the emergency plan and EPIPs versus regulatory requirements and the plan's licensing basis. The inspectors concluded that plan and procedural inconsistencies likely took place over a period of years, rather than resulting from the critique of a specific drill or exercise, or the critique of an actual emergency event response. With respect to the failure to adequately understand and incorporate relevant criteria in the NEI 99-02 document, Revision 0 of NEI 99-02 became effective in April 2000 following a pilot program that involved some other licensees.

The revised RCE's team did not identify prior instances where the EP drill and exercise critique process was found to be inadequate. Instead, the RCE team determined that plant management did not demonstrate a sufficiently self-critical

culture and, as a result, the initiation of Revision 0 of RCE 000187 was delayed about seven months after the February 2002 exercise, as summarized in the following paragraphs. The RCE team concluded that, if the licensee had initiated an RCE upon being informed of NRC's preliminary White finding, the licensee would have had an earlier opportunity to identify the root and contributing causes of its inadequate EP drill and exercise critique process.

The NRC's final exit interview was conducted on April 1, 2002. The licensee's critique report was issued on April 5, 2002. However, the revised RCE's team determined that, although licensee management was informed of a preliminary White finding during the February 2002 interim exit meeting and the April 1, 2002 final exit meeting, no mention was made of NRC's preliminary White finding in the licensee's exercise critique report dated April 5, 2002. Instead, the licensee's April 5 critique report indicated that all 10 Drill and Exercise Performance (DEP) Performance Indicator (PI) opportunities were successful and that 24 of 26 exercise objectives were met. In contrast, NRC's preliminary White finding was based, in part, on one of the 10 DEP indicator opportunities being unsuccessful. Prior to its quarterly PI data submittal to NRC, the licensee revised its assessment of the DEP opportunities during the February 2002 exercise to agree with NRC's conclusion that only nine of 10 opportunities were successful.

In its late June 2002 submittal of additional information to NRC, the NMC concurred with NRC that the EP exercise critique process was weak and that NRC's finding was valid. However, NMC disagreed with NRC's characterization of the preliminary finding as being White (a finding having low to moderate safety significance).

By correspondence dated September 12, 2002, the licensee was notified of the results of NRC's final significance determination of a White finding on the February 2002 exercise's critique issue. On September 26, 2002, the licensee initiated Revision 0 of RCE 000187.

Revision 0 of RCE 000187 was approved by licensee management on November 15, 2002. The minutes of the November 15 meeting of the licensee's Corrective Action Review Board (CARB) indicated that the CARB accepted this RCE with minor editorial comments. In contrast, during the November 18 through 22 portion of this supplemental inspection, the inspectors concluded that Revision 0 was inadequate. As a result, the licensee revised the leadership and some other members of the RCE team and tasked them with revising RCE 000187 "to add depth, clarity, and focus to the root causes, corrective actions, and extent of condition." Records indicated that the licensee categorized the resulting revision of RCE 000187 as a "major rewrite." In addition, the licensee initiated RCE 000194. The stated scope of RCE 000194 was "limited to analyzing and determining why the Point Beach RCE process .....did not yield a product that adequately met NRC expectations as defined under Inspection Procedure 95001."

The inspectors' concerns with Revision 0 of RCE 000187 are summarized in Subsection 02.2.a of this inspection report, which also summarizes further insights on the inadequacies of Revision 0 as were later determined by the licensee's RCE 000194 team.

c. Determine that the evaluation documents the plant specific risk consequences (as applicable) and compliance concerns associated with the issue.

Revisions of RCE 000187 adequately addressed the risk consequences associated with the White finding on the licensee's critique of its February 2002 EP exercise. Specifically, since the finding was associated with the critique of a response to simulated degraded plant conditions, rather than a critique of a response to actual degraded plant conditions, all RCE 000187 revisions adequately concluded that there was no real threat to public health and safety. The revised RCE included an appropriate elaboration that a purpose of conducting EP drills and exercises was to ensure that, if an actual emergency event occurs, plant staff would adequately respond to the event and, in coordination with offsite officials, would protect public health and safety.

The RCE revisions adequately addressed compliance concerns associated with the White finding by referencing the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Paragraph IV.F.2.g. Specifically, 10 CFR 50.47 (b)(14) requires, in part, that periodic exercises and drills be conducted to develop and maintain key skills, and that deficiencies identified as a result of these exercises or drills will be corrected. Similarly, 10 CFR Part 50, Appendix E IV.F.2.g requires that EP training, including exercises, shall provide for formal critiques in order to identify weak or deficient areas that need correction, and that weaknesses or deficiencies that are identified shall be corrected.

02.2 Root Cause and Extent of Condition Evaluation

a. Determine that the problem was evaluated using a systematic method(s) to identify root cause(s) and contributing cause(s).

The RCE 000187 revisions indicated that the following methods and analysis techniques were utilized: interviews with samples of senior managers, EP staff, and other Emergency Response Organization (ERO) members; document reviews; bench marking; barrier analysis; review of industry operating experience; event and causal factor charting; and failure mode analysis charting. Stream analysis was added by the revised RCE 000187 team to help determine the underlying causes of problems related to organizational effectiveness.

During the November 2002 portion of the supplemental inspection, the inspectors determined that Revision 0 of RCE 000187 was inadequate for several reasons. For example, during interviews with licensee staff, the inspectors were informed that one of Revision 0's two root causes was not valid. Specifically, the second root cause was that "emergency planning treated the Emergency Plan and NEI 99-02 standards as "guidance" vice requirements, including the translation of these requirements into implementing procedures."

Licensee staff told the inspectors that the EP staff did not mistreat the Emergency Plan's requirements. However, licensee staff then could not adequately explain the meaning of the aforementioned root cause statement in Revision 0.

The inspectors also identified areas that were inadequately reviewed in Revision 0 and identified discontinuities between the results stated in Revision 0 and the issues identified by the analytical tools used by the RCE team. For example, the RCE team's analyses identified knowledge and mis-interpretation issues, such as involving NEI 99-02, and corrective action program usage problems that were not adequately addressed in the root cause statements or adequately explained within the RCE report. Also, Revision 0 did not include an assessment of the Nuclear Oversight staff's ability to identify EP issues. The inspectors also identified that the licensee appeared to have repetitive problems in understanding its Emergency Plan's licensing basis, as were identified in prior RCE concerning the Emergency Planning Zone's siren system and the ERO's off-hours augmentation drills.

During the March 3 through 7, 2003 portion of this supplemental inspection, the inspectors reviewed and discussed RCE 000194 with a member of the licensee's staff, who supported the consultant who served as RCE 000194's "investigator." The RCE 000194 provided the following additional insights on why Revision 0 of RCE 000187 was determined to be inadequate by the inspectors in November 2002:

- The site failed to respond to an emerging issue as it unfolded, rationalizing their opinion. This allowed the issue to remain virtually undiagnosed for eight months prior to action.

  The "issue" was NRC's preliminary White finding on the licensee's critique of its February 2002 exercise performance. The licensee did not initiate Revision 0 of RCE 000187 before NRC issued the final White finding in September 2002.

- Managers responsible for the oversight of the RCE failed to recognize the need for experience and impartiality on the RCE team, especially in the RCE team leader position.

  The RCE 000194 reasonably indicated that the more appropriate role for a member of the licensee's EP staff on RCE 000187 would have been as a team member, rather than a team leader. The investigator also noted that EP staff disagreed with the preliminary White finding.

- When experienced personnel were finally provided for the RCE, the RCE team leader, due to his previous mind set, did not adequately incorporate their recommendations or comments into the RCE.

The RCE 000194 indicated that not all members of the augmented RCE 000187 team were given an opportunity to review Revision 0 prior to its submittal to the CARB. The investigator noted that the team leader rejected a team member's suggestion to review Revision 0 versus the relevant NRC inspection procedure, and that the team leader made other decisions that adversely affected Revision 0's quality without the knowledge of other team members or reviewers.

- There was inadequate guidance regarding CARB review criteria or CARB members' roles and responsibilities.

  The investigator determined that procedure NP 5.3.1 indicated that the CARB could either accept as written, accept with minor comments, or reject completed RCEs, and that CARB members then relied upon their collective knowledge and experience while reviewing RCEs. The investigator also concluded that an apparent weakness within the CARB was members' levels of understanding of NRC's relevant supplemental inspection procedure.

- There is no expectation for the RCE's management sponsor to (via CARB) keep the management team informed of the status of significant event investigations.

  As a result, the inspectors concluded that CARB members could be unaware of possible concerns on the selection of an RCE's team leader, or other team members, or how a team's ability to focus on a RCE may be adversely impacted by pressures related to their other work responsibilities. The investigator noted that oversight of Revision 0 was inadequate due to factors such as the EP Department's bias regarding the White finding and the low priority given to RCE 000187.

In contrast to the aforementioned concerns regarding Revision 0 of RCE 000187, the team responsible for Revisions 1 and 2 of RCE 000187 was led by a licensee manager who was not a member of the EP organization and who was not a member of the team associated with Revision 0 of RCE 000187. This team leader was determined to be more experienced in performing RCE than the leader of Revision 0 of RCE 000187, whose assignment was changed to team member on the revised RCE 000187 team. With one other exception, the revised RCE's team members were the same as those on the enlarged team related to Revision 0, including the consultant.

b. Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.

The inspectors received Revision 1 of RCE 000187 in late January 2003 and discussed Revisions 1 and 2 of this RCE with cognizant licensee staff during the March 3 through 7 portion of this supplemental EP inspection. The inspectors concluded that the following root causes in the revised RCE 000187 were adequate:

1. Station management has not adequately enforced and the plant staff has not fully embraced the expectations to consistently demonstrate a self-critical culture.

   The revised RCE's team determined that the licensee's prior efforts to improve organizational effectiveness and to change behaviors were not successful because the plant organization did not adequately understand drivers and barriers preventing improved performance. For example, the revised RCE team concluded that NRC's concerns on the licensee's critique of the February 2002 exercise were indications of an inadequate critique methodology. The team noted that some exercise participants were more interested in getting critiques over with, rather than the quality of the critiques. The team also concluded that an RCE, rather than an ACE, should have been initiated when licensee management was notified of NRC's preliminary White finding, and that the ACE did not effectively address or match the importance of a White finding.

2. The EP Department management and station management have not effected a change to improve site behaviors to support EP critical tasks.

   The revised RCE indicated the following types of organizational concerns: communicating expectations; providing written guidance; training; managing change; and monitoring and trending issues. The revised RCE indicated that plant personnel had not fully accepted that EP was a "core business" in addition to their normal duties and duties during a plant outage. This RCE also concluded that EP Department management had not effectively championed EP-related activities. For example, the revised RCE's team identified it was difficult for the EP staff to obtain support from onsite organizations. Based on records review and discussion with licensee staff, the inspectors concluded that the types of needed support included participation in EP drill/exercise scenario development teams and the subsequent critique process, as well as such relatively routine tasks as maintaining the ERO's pager system, reviewing draft EPIP revisions, and filling vacancies in the ERO's roster.

3. The EP Department management did not provide training and development of the EP staff to support a major regulatory change (i.e., NRC's Revised Reactor Oversight Process).

   The revised RCE's team also determined that there was no formal training program for the licensee's EP staff, including training of incoming EP staff members on the licensing basis of the Point Beach Plant's Emergency Plan.

The inspectors concluded that the following direct causes of the White finding were adequately identified in the revised RCE 000187:

1. During the development of exercise/drill scenarios, specific pass/fail criteria were not developed resulting in over-reliance on evaluator and controller knowledge as a substitute for detailed pass/fail criteria.

   The revised RCE's team adequately concluded that this direct cause resulted in the licensee's drill/exercise evaluators, controllers, participants, and Nuclear Oversight's observers being unable to measure observed performance versus regulatory requirements and Emergency Plan commitments. The team also identified the need for training of the licensee's drill/exercise controllers and evaluators, plus Nuclear Oversight's observers.

2. The EP staff misunderstood the Point Beach Nuclear Plant Emergency Plan and NEI 99-02, Revision 2, "Regulatory Assessment Performance Indicator Guideline," for (site) evacuation and Emergency Action Level start times. This resulted in inadequate translation of these requirements into implementing procedures.

   A conclusion of the revised RCE's stream analysis was that implementation of the Revised Reactor Oversight Process in the EP functional area was not fully successful. Based on records review and discussion with licensee staff, the inspectors concluded that this second direct cause statement was also applicable to the White finding on the inadequate critique of the initial offsite Protective Action Recommendations (PAR), based on a comparison of the relevant statements in the Emergency Plan and the corresponding EPIP.

The inspectors concluded that the following contributing causes of the White finding were adequately identified in the revised RCE 000187:

1. Procedures such as EPIP 1.3 and 6.1 were too broadly written, thus impeding the clear identification of deviation from expected outcomes.

   The conclusion that these two implementing procedures, which addressed PAR decision making and onsite protective actions, respectively, contained inadequate translations of Emergency Plan commitments also indicated a need to compare other EPIPs to the Plan for potential inconsistencies. The inspectors concluded that this contributing cause was applicable to the licensee's exercise controllers, evaluators, participants, and Nuclear Oversight's drill/exercise observers.

   With respect to the February exercise's initial PAR associated with the White finding, the revised RCE indicated that the failure to recognize the importance of this PAR deviating from the scenario's predicted initial PAR was an example of a mind set that it was acceptable to deviate from a procedure as long as the deviation was perceived to be in a conservative direction.

2. Weak training methodologies were used to improve the understanding of site personnel on critiquing methods, event classification, PAR determination, and application of industry standards.

   The revised RCE's team conducted a number of interviews with members of the plant's ERO. Common themes regarding the critique process included the following. There was a lack of knowledge of guidelines for conducting EP critiques. There was little or not training on the EP critique process. There was no clear guidance on pass/fail criteria for drill/exercise objectives.

   The revised RCE also contained interview comments on emergency classification and PAR opportunities, which are summarized as follows. Only licensed operators routinely received training on making emergency classifications. Other personnel's training on event classification and PAR decision making occurred during EP drills or exercises. The PAR procedural guidance was confusing if not routinely used.

3. Narrow application of "Extent of Condition" assessments during previous EP-related RCE may have prevented the mitigation of the failures associated with this RCE.

   Relevant information on this contributing cause is summarized in Subsection 02.2.c of this inspection report.

c. Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience.

The team associated with revised RCE 000187 did not identify prior instances of inadequate EP exercise critiques at the Point Beach Plant. However, the team concluded that the EP staff's initial self-assessment of an actual Unusual Event, which occurred on March 4, 2002, was incomplete in that some involved personnel were not interviewed and because this self-assessment included unclear information on whether the emergency declaration was timely. The inspectors reviewed the re-assessment of this event, which was completed in January 2003, and concluded that the Unusual Event declaration was timely.

The revised RCE's team identified several "common themes" in its review of four EP-related RCE that were completed since implementation of the Revised Reactor Oversight Program in April 2000. Specifically, RCE 000076 addressed Alert and Notification System (ANS) problems in 2000 that resulted in the associated PI's data declining into the regulatory response (White) band. The RCE 001009 addressed unsuccessful off-hours augmentation drill performance. The Kewaunee Nuclear Power Plant's RCE 01-056 addressed a declining trend in the DEP indicator. The Kewaunee Plant's RCE 02-577 addressed a concern that the EP staff was having difficulties in implementing the requirements of the plant's corrective action program process. The revised RCE 000187 listed excerpts from these RCEs' root and contributing causes that were considered

similar to various causes listed in the revised RCE 000187, including: inadequate consideration of the Emergency Plan's licensing basis; less than adequate oversight by Nuclear Oversight staff; failure to adequately incorporate NEI 99-02 in training and procedures; and an EP staff mind set that augmentation drill problems were only related to personnel accountability. The team noted that the two Kewaunee Plant RCE were not extended to the Point Beach Plant.

In addition to the aforementioned review of four RCE, the team reviewed 11 industry operating experience EP issues associated with greater than Green NRC findings. The team concluded that only one was relevant to the revised RCE 000187. This issue involved a preliminary White finding on an inadequate critique of an EP exercise at the Peach Bottom Plant. However, the team determined that the Peach Bottom preliminary finding was issued at about the same time frame as the preliminary White finding on the critique of Point Beach's 2002 exercise. As a result, the team concluded that assessment of this Peach Bottom issue would not have prevented the White finding associated with revised RCE 000187.

Based on the aforementioned information, the inspectors concluded that the team adequately addressed prior licensee and industry EP program experiences in revised RCE 000187.

d. Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.

The revised RCE's team evaluated records associated with the EP cornerstone. The team concluded that procedure NP 5.2.16, titled NRC Performance Indicators, adequately addressed the criteria of NEI 99-02 for the ANS and ERO indicators. The team also reviewed Nuclear Oversight's 2002 assessments of records associated with these two PIs, as well as Nuclear Oversight's 2001 records assessments for the Initiating Events and Mitigating Systems PI. The team concluded that the failure to adequately implement NEI 99-02 was limited to the DEP indicator in the EP Cornerstone.

The revised RCE's team also reviewed Nuclear Oversight's assessments of samples of security force drills and fire brigade drills conducted during 2002 to determine whether there were instances of inadequate consideration of regulatory requirements or commitments in the conduct and critique of these drills. The team concluded that inadequate consideration of licensing basis documents was limited to the EP organization.

Based on the above, the inspectors concluded that the licensee conducted an adequate extent of condition evaluation.

02.3 Corrective Actions

a. Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions are necessary.

The revised RCE 000187 listed 20 corrective actions that were adequately associated with one or more of the root, direct, and/or contributing causes. The inspectors reviewed a sample of these actions, which were either completed or were in progress. The following were among the 20 corrective actions listed in revised RCE 000187:

- The NMC was performing an organizational effectiveness assessment to identify issues and barriers affecting improved plant performance.
- A validation review of the Emergency Plan and EPIPs versus regulatory requirements and the plan's licensing basis was initiated. This review was to ensure that sufficient detail was provided in the plan and its implementing procedures, that ambiguities in the wording of commitments would be removed, and that commitments stated in the plan were consistent with the plan's licensing basis.
- A multi-phase program was initiated to upgrade the EP drill and exercise critique process, and to provide initial and continuing training on the critique process to persons assigned as drill/exercise controllers and evaluators.
- Procedure NP 5.2.16 would be revised to accurately address the criteria of NEI 99-02 for the evaluation of DEP indicator opportunities.
- Nuclear Oversight would revise the NMC Assessment Handbook to improve its focus on risk significant emergency planning standards, DEP indicator opportunities, and the EP drill and exercise critique process.
- Teams of "senior station leaders" were formed to improve support for the EP program and to improve implementation of the plant's corrective action program.
- Additional corrective action program support and training would be provided to the EP staff.
- The EPIPs 1.3 and 6.1 were revised.
- A program would be developed to address training and development of the EP staff.
- The EP staff would develop a monthly corrective action status report.

The inspectors concluded that these and other corrective actions listed in revised RCE 000187 were adequate to address the identified root, direct, and contributing causes.

b. Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

The inspectors concluded that the corrective actions listed in revised RCE 000187 were acceptably prioritized and included adequate consideration of their risk significance and regulatory compliance.

c. Determine that a schedule has been established for implementing and completing the corrective actions.

The licensee developed an acceptable schedule for the implementation of the short and longer-term corrective actions listed in revised RCE 000187. Based on a review of a sample of completing and ongoing corrective actions, the inspectors did not identify any concerns regarding their status versus the schedule contained in the revised RCE.

d. Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.

Revised RCE 000187 included a prioritized schedule of planned effectiveness reviews that would be performed over a 12 month period. The schedule also identified the manager assigned lead responsibility for a specific effectiveness review.

03 Emergency Preparedness (EP)

3EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

During the March 2003 portion of this supplemental inspection, the licensee provided Focused Self-Assessment EP-03-01, titled "EP Staffing and Augmentation Requirements" for the inspectors' review. This document, dated January 31, 2003, indicated that an Acting EP Manager initiated this self-assessment in anticipation of a more comprehensive comparison of the current Emergency Plan revision to the Plan's licensing bases. The inspectors reviewed this self-assessment and, as a result, requested that the licensee re-assess its 1998 through early 2003 augmentation drill records. The drill records' re-assessment was submitted on March 19, 2003.

b. Findings

Self Assessment EP-03-01 identified one Emergency Plan change that resulted from an inadequate 10 CFR 50.54(q) review. The Plan's effectiveness was decreased by incorrectly re-categorizing six ERO positions, which were to augment the on-shift ERO

in 30 minutes of an Alert or higher emergency declaration, as 60 minute augmentation positions. The self assessment determined that this unapproved (by NRC) change to the licensee's augmentation commitment was implemented in October 1998 revision of the Emergency Plan: Technical Support Center (TSC) Manager; the TSC's Radiation Chemistry Coordinator; the EOF's Dose/Protective Action Recommendation (PAR) Coordinator; the Operations Support Center's (OSC) Instrument and Controls Leader; the OSC's Electrical/Mechanical Leader; and the OSC's Radiation Chemistry Monitor. The inspectors concluded that this re-categorization adversely affected the licensee's augmentation capability by reducing the likelihood that on-shift emergency responders would be augmented in 30 minutes by persons qualified to perform the functions associated with these six positions.

The inspectors requested that the licensee re-assess its records of off-hours augmentation drills that were conducted between October 1998 and February 2003 to determine whether sufficient personnel, who were incorrectly re-categorized in the Emergency Plan, had adequately demonstrated the capability to reach their emergency duty stations in 30 minutes. On March 19, 2003, the licensee submitted its re-assessment of its successful off-hours augmentation drill records for this time period. The requested re-assessment was limited to augmentation drill records since there were no actual off-hours Emergency Plan activations during this time period that would have required augmentation of the on-shift ERO. For each successful drill, the licensee's March 2003 submittal indicated that at least one person assigned to each of the six positions, which were incorrectly re-categorized per the October 1998 revision to the Emergency Plan, had an estimated response time under 30 minutes.

The inspectors analyzed the information in Self Assessment EP-03-01 and the licensee's March 2003 reassessment of its 1998 through early 2003 augmentation drills using the criteria of the April 2002 revision of NRC Inspection Manual Chapter (IMC) 0609, and Nuclear Regulatory Guide (NUREG) 1600, which contains the NRC's Enforcement Policy.

Per Section 2.2(e) of Appendix B of IMC 0609, the decrease in the Emergency Plan's effectiveness, namely the re-categorization of six ERO positions from 30 minutes to 60 minute augmentation positions, represented a non-compliance with NRC requirements.

Part 50.54(q) of 10 CFR states, in part, that the licensee can make changes to its Emergency Plan without prior NRC approval only if these changes do not decrease the effectiveness of the Plan and if the Plan, as changed, continues to meet the requirements of 10 CFR 50.47(b) and the requirements of Appendix E to Part 50.

Contrary to the above, in October 1998, the licensee decreased its Emergency Plan's effectiveness without prior NRC approval as a result of an inadequate 10 CFR 50.54(q) review of the six ERO positions that were re-categorized to be 60 minute augmentation positions. These six positions were re-categorized from October 1998 until late January 2003. This severity Level IV violation is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 50-266/02-14-01 and 50-301/02-14-01).

05 Miscellaneous Issues

.1 Non-Cited Violation (NCV) No. 50-266/02-14-01 and 50-301/02-14-01

As a result of Self-Assessment EP-03-01, dated January 31, 2003, the licensee identified that it had decreased the effectiveness of its Emergency Plan without prior NRC approval by re-categorizing six ERO positions from 30 minute augmentation positions to 60 minute augmentation positions due to an inadequate 10 CFR 50.54(q) review of its Emergency Plan's augmentation commitments that occurred in October 1998. In late January 2003, the licensee re-instituted these six positions as 30 minute augmentation positions. Consequently, the NCV of the 10 CFR 50.54(q) requirement is closed.

04 Exit Meeting Summary

On March 7, 2003, the inspectors presented the preliminary inspection results to Mr. A. Cayia and other members of the Point Beach Nuclear Plant's management and staff. On April 15, 2003, the inspectors presented the preliminary inspection findings on the licensee's re-assessment of several years' records of off-hours staff augmentation drills, which was submitted on March 19, 2003, to Mr. G. Arent and other members of the Point Beach Nuclear Plant's management and staff. The licensee acknowledged the information presented on March 7 and April 15, 2003. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

Nuclear Management Company
J. Anderson, Business Support Manager
G. Arent, Regulatory Affairs Manager
J. Boesch, Maintenance Manager
A. J. Cayia, Site Vice President
F. Flentje, Principal Regulatory Affairs Analyst
M. Herndon, EP Consultant
D. Hettick, Performance Assessment Manager
R. Hopkins, Nuclear Oversight Supervisor
J. Jensen, Plant Manager
D. Johnson, Acting EP Manager
D. Miller-Hastie, Acting EP Manager
R. Milner, Training Manager
J. Morlino, EP Manager
M. Rinzel, Operations Senior Engineer
D. Schoon, Operations Manager
D. Schuelke, Corporate Support Services Manager
A. Spaulding, EP Specialist
S. Thomas, Radiation Protection Manager

WeEnergies Company
D. Weaver, Nuclear Asset Manager

U.S. Nuclear Regulatory Commission
P. Krohn, Senior Resident Inspector
S. Orth, Senior Radiation Protection Inspector
C. Pederson, Director, Division of Reactor Safety
T. Ploski, Senior Emergency Preparedness Inspector

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

50-266/02-14-01; 50-301/02-14-01	NCV	Decreased Emergency Plan's staff augmentation commitment without prior NRC approval due to an inadequate 50.54(q) review in October 1998 until corrected late January 2003.

Closed

50-266/02-14-01; 50-301/02-14-01	NCV	Decreased Emergency Plan's staff augmentation commitment without prior NRC approval due to an inadequate 50.54(q) review in October 1998 until corrected late January 2003.

LIST OF DOCUMENTS REVIEWED

02 Evaluation of Inspection Requirements

RCE 000187; Failure of the Emergency Planning Critique Process to Identify Drill/Exercise Weaknesses - NRC White Finding; Revisions 0, 1, and 2

RCE 000194; RCE 187 Did Not Meet Standards to Close NRC Inspection; Revisions 0 and 1

Internal Memorandum; Minutes From the November 15, 2002 CARB Meeting; dated November 18, 2002.

Procedure N 5.2.16; NRC Performance Indicators; Revision 5; dated October 30, 2002

ACE 000663; Perform an Apparent Cause Evaluation on the Preliminary White Finding in Accordance With Procedure NP 5.3.1; dated April 3, 2002

CAP 029492; White Finding in EP Following the 2002 Graded Exercise; dated September 23, 2002

CAP 002385; Unusual Event for Propane Tank Leak; dated March 4, 2002

ACE 000622; Apparent Cause Evaluation on Propane Gas Leak; dated March 6, 2002

EP Response to March 4, 2002 Unusual Event; Revision 1; dated March 27, 2002

CAP 030381; March 4, 2002 Unusual Event Declaration May Not Have Been Timely; dated December 11, 2002

ACE 001112; March 4, 2002 Unusual Event Declaration May Not Be a Timely Declaration; dated January 31, 2003

Point Beach Focused Self-Assessment EP-03-01; EP Staffing and Shift Augmentation; dated January 31, 2003

Minutes of January 22, 2003 Meeting to Evaluate Focused Self-Assessment EP-03-01; dated February 4, 2003

Internal Memorandum; CAP 031501 - Evaluation of ERO Drill Data, October 1998 - January 2003; dated March 19, 2003

LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ANS	Alert and Notification System
CAP	Corrective Action Program
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
EOF	Emergency Operations Facility
EPIP	Emergency Plan Implementing Procedure
EP	Emergency Preparedness
ERO	Emergency Response Organization
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NMC	Nuclear Management Company
NRC	Nuclear Regulatory Commission
NUREG	Nuclear Regulatory Guide
OSC	Operations Support Facility
PAR	Protective Action Recommendation
PI	Performance Indicator
RCE	Root Cause Evaluation
TSC	Technical Support Center