April 24, 2001

Mr. M. Reddemann Site Vice President Kewaunee and Point Beach Nuclear Plants Nuclear Management Company, LLC 6610 Nuclear Road Two Rivers, WI 54241

## SUBJECT: POINT BEACH NUCLEAR PLANT NRC INSPECTION REPORT 50-266/01-06(DRP); 50-301/01-06(DRP)

Dear Mr. Reddemann:

On March 30, 2001, the NRC completed a team inspection at the Point Beach Nuclear Plant. The enclosed report documents the inspection findings which were discussed on April 2, 2001, with you and members of your staff.

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

On the basis of the samples selected for review, there were no findings of significance identified during this inspection. The team concluded that problems were properly identified, evaluated, and resolved within the problem identification and resolution programs.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room).

Sincerely,

# /RA/

Roger Lanksbury, Chief Branch 5 Division of Reactor Projects

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

- Enclosure: Inspection Report 50-266/01-06(DRP); 50-301/01-06(DRP)
- R. Grigg, President and Chief cc w/encl: **Operating Officer, WEPCo** M. Wadley, Chief Nuclear Officer, NMC J. Gadzala, Licensing Manager D. Weaver, Nuclear Asset Manager F. Cayia, Plant Manager 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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- cc w/encl: R. Grigg, President and Chief Operating Officer, WEPCo M. Wadley, Chief Nuclear Officer, NMC J. Gadzala, Licensing Manager D. Weaver, Nuclear Asset Manager
  - F. Cayia, Plant Manager
  - 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
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# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket Nos: License Nos:	50-266; 50-301 DPR-24; DPR-27
Report No:	50-266/01-06(DRP); 50-301/01-06(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Point Beach Nuclear Plant, Units 1 & 2
Location:	6610 Nuclear Road Two Rivers, WI 54241
Dates:	March 19 through 30, 2001
Inspectors:	M. Kunowski, Project Engineer (Lead Inspector) R. Powell, Resident Inspector S. Sheldon, Reactor Engineer
Approved by:	Roger Lanksbury, Chief Branch 5 Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000266-01-06; 05000301-01-06, on 03/19 - 30/2001. Nuclear Management Company, LLC, Point Beach Nuclear Plant, annual baseline inspection of the identification and resolution of problems.

The inspection was conducted by two regional inspectors and a resident inspector. No findings were identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <u>http://www.nrc.gov/NRR/OVERSIGHT/index.html</u>.

#### Identification and Resolution of Problems

The team concluded that the licensee was generally effective at identifying problems and putting them into the corrective action program. There was strong management emphasis on plant staff to identify problems and, overall, a very responsive plant staff. Since 1997, there had been an average of 4200 condition reports written each year. With the large number of condition reports and associated corrective actions, a dated software platform for the corrective action program, and the press of routine and emergent work activities, there was indication of timeliness and quality problems with some aspects of the corrective action program. Examples were identified by the inspectors, consistent with what the licensee had identified, of protracted resolution of problems with the freeze protection system and with discrepancies between the locked status of valves in the plant and the designation as locked in equipment checklists. Examples were also identified where corrective actions for some problems had been incorporated with the resolution of other related problems which were then incorporated with the resolution of yet other problems (that is, by closing corrective action documents to other documents and so on), creating the potential for dilution of the effectiveness of corrective actions for some of the original problems and for unintended extension of due dates for older items. Although there had been some expressed dissatisfaction with some aspects of the corrective action program, the inspectors identified no impediments to a safety conscious work environment.

## Report Details

## 4. OTHER ACTIVITIES (OA)

#### 4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

#### (1) Inspection Scope

The inspectors conducted plant tours, observed surveillance tests in progress; interviewed plant personnel; and reviewed inspection reports issued over the last year, condition reports (CRs) and associated corrective action program documents, and selected maintenance work orders (WOs) for two high risk systems (Component Cooling Water [CCW] and 4160-volt), to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The inspectors also reviewed several licensee audits and self-assessments. The effectiveness of the audits and assessments was evaluated by comparing the audit and assessment results against self-revealing and NRC-identified issues. A listing of the documents requested by the inspectors prior to the inspection and those documents reviewed during the inspection is included at the end of this report.

## (2) Findings

In general, problems were properly identified, characterized, and entered into the corrective action program for evaluation and resolution. There was strong management emphasis on plant staff to document problems in condition reports and a plant staff that, overall, was very responsive. Since 1997, there had been an average of 4200 CRs written per year.

The inspectors noted that the licensee was aware of potential problems (for example, poor timeliness and "daisy-chaining"—whereby corrective action items were closed to other items which were closed to other items and so on) caused by the plant staff having to contend with a relatively large number of items in the corrective action process, a dated software platform for the corrective action tracking system, and the demands of other plant-related issues, such as training, emergent work, and outage planning and implementation. Efforts to address these potential problems included an increased emphasis on face-to-face discussions of corrective action issues instead of discussions via more impersonal e-mails and the evaluation of replacement corrective action tracking systems.

Specifically, regarding the CCW and 4160-volt systems, the inspectors found the system engineers to be very knowledgeable concerning the problems of their systems and those problems were appropriately being addressed through the various corrective action processes, such as procedure feedback, CRs, WOs, and modifications. For equipment problems not related to the two systems, the inspectors noted several instances (regarding reactor coolant pump standpipes, emergency diesel generator (EDG) G-01 coolant expansion tank level fluctuations, and high vibrations

of EDG G-02) where suspect equipment parameters were being tracked and no CRs had been written; however, it appeared to the inspectors that these situations did not clearly warrant CRs. Overall, the inspectors found no reluctance by plant staff to write CRs or otherwise identify problems. For example, during the second week of the inspection, a minor feedwater transient occurred on Unit 1 when the two operating heater drain pumps unexpectedly tripped. After stabilizing the plant, the operating crew decided on its own initiative to pull themselves off of shift to critique their response to the transient (CR 01-1009). Regarding audits and assessments, the licensee's quality assurance group (referred to as Organizational Assessment or OA) was appropriately active in the corrective actions area and recent self-assessments in operations and the corrective action program were probing and critical.

#### b. Prioritization and Evaluation of Issues

#### (1) Inspection Scope

The inspectors assessed the prioritization and evaluation of a selected sample of CRs to verify the appropriateness of the category assigned, operability and reportability determinations, extent of condition evaluations, root and apparent cause investigations, and of the assigned corrective actions. As part of this assessment, the inspectors attended the station's daily management meeting where newly generated WOs and CRs were reviewed and the subsequent daily meeting of individuals from major work groups who were assigned part-time as liaisons with the corrective action program (CAP) group. The documents listed at the end of the report were used by the inspectors during the assessment of this area.

#### (2) Findings

In general, issues were appropriately categorized, prioritized, and evaluated. About 1½ years ago, the licensee revised its procedure to allow certain non-licensed supervisors to conduct the initial screening of CRs that did not involve nuclear safety. The intent of this change was to reduce the paperwork burden on senior reactor operators (SROs), who had, until then, been screening every CR. It appeared to the inspectors that this change has been successful overall. However, during the 2 weeks of inspection, there were three CRs that should have been screened by an SRO but had been screened by a non-licensed supervisor and three CRs that were screened by SROs as non-nuclear safety when the CRs did in fact pertain to nuclear safety. The six CRs were sent back from the morning management CR review meeting for re-screening.

Also in the area of screening, the inspectors reviewed two instances where the documented reasons given by the initial screener for operability were weak or non-conservative.

 On March 17, 2001, an auxiliary operator wrote CR 01-0840 because clear floor-sealer had seeped into the D-31 125-volt DC (direct current) safety-related panel and might have prevented the proper operation of the contacts in the panel. However, the SRO who conducted the initial operability screening of this issue concluded that the panel was operable because all loads off of D-31 were operating normally and no interruption of power was noted. Apparently, the screener did not consider the possible effect of the sealer on any necessary change of state of the contacts. Subsequently, an SRO from the next shift of operators reviewed the screened CR as part of his routine preparation to take the watch and concluded that the initial operability determination was inadequate. Substantial followup was then conducted, an amended operability basis was provided, and the need for engineering involvement was identified.

In the other instance, on March 18, a sample of oil was taken from the G-04 • EDG governor after the monthly Technical Specification-required run and was found to have visible particulates in it. In the initial screening of CR 01-0846 that was written to document the particulates in the oil, the screener, in consultation with engineering, considered the EDG operable because it had just passed its surveillance test and several exercises of the governor had been completed successfully. The inspectors, however, were concerned that the particulates in the oil might be indicative of a problem that developed near or at the end of the surveillance test run, thus not preventing the successful completion of the run, but which might prevent successful operation of the EDG during the next monthly surveillance test run or during extended operation under accident conditions. Similarly, the manual exercise of the governor would likely not duplicate, or even approximate, the conditions of operation that the governor could be subject to during an accident. The licensee eventually declared the EDG inoperable.

The inspectors noted that in September 1997, particulates in governor oil resulted in the failure of the G-03 EDG to start during a surveillance test (Licensee Event Report (LER) 97-038). In that event, the licensee concluded that the particulates had been introduced into the governor after completion of the previous monthly run of the diesel.

#### c. Effectiveness of Corrective Actions

#### (1) Inspection Scope

The inspectors reviewed CRs to verify that corrective actions commensurate with the issues were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns. The documents listed at the end of the report were used during the review.

#### (2) Findings

The licensee's assessments, effectiveness reviews, and audits have identified problems with timeliness of various aspects of the corrective action process and the long-term effectiveness of corrective actions for some issues. This was consistent with what the inspectors noted during their review. For example:

• In early 1999, there was a potentially significant failure of the facade freeze protection system associated with the Unit 1 safety injection system (Inspection Report 50-266/99004). This resulted in extensive corrective actions, including

the replacement of the entire freeze protection system. However, during the sudden onset of very cold weather in early December 2000 during the initial operation of the new facade freeze system, many problems occurred. A Non-Cited Violation for one of those problems was issued in a previous inspection report (50-266/2000-017; 50-301/2000-017). CR 00-4046, written to document many of the problems that occurred in early December, noted the lack of final facade freeze drawings in the control room, an issue which was still being addressed as part of an action item from the original 1999 problem (CR 99-0077).

- In August 2000 (Inspection Report 50-266/2000-009; 50-301/2000-009, Section 1R04.2), the NRC identified discrepancies with equipment checklists and the locked valve program and also noted that various CRs had been written since May 2000 documenting a similar problem. Subsequently, OA identified additional examples of problems with the checklists and the resident inspectors in an early 2001 report identified a finding for continued problems in this area (Inspection Report 50-266/01-03; 50-301/01-03, Section 4OA5).
- CR 99-3053 was written because of excessive vibrations on the Unit 1 and Unit 2 "B" CCW pumps, but was subsequently closed to WOs 9918996 and 9919021. Adjustment of the piping supports under the WOs only increased the vibration so the supports were returned to their original configuration and the WOs were closed with no further action required. With the closure of the WOs, however, the original concern of the CR was not resolved. New CRs were eventually written because of the vibration problems.
- The last example, which further highlighted some possible pitfalls with the licensee's efforts to reduce its relatively large number of potentially duplicative CRs, corrective actions, and WOs, was an issue first discussed by the licensee in its recent self-assessment of the CAP, but developed further by the inspectors. Ten CRs (from the year 2000) pertaining to various problems with the commercial grade dedication and procurement programs were closed out to CR 00-2312 which was recently closed to an action item (Number 23) of CR 00-2812, written for inoperable offsite emergency notification sirens (Inspection Report 50-266/00-12; 50-301/00-12). The inspectors had several concerns:
  - 1) The closure of 11 CRs to one of many corrective actions for the siren CR will require additional attention by the licensee to assure that the specific issues and generic implications of the 11 CRs are adequately addressed when the action item is closed.
  - 2) The priority of the action item that now included 11 other CRs was 4, relatively low priority on the licensee's 1-5 scale, even though several of the 11 CRs were originally written in response to a self-assessment that identified significant process weaknesses in the commercial grade dedication program.

- 3) Many of the CRs that were closed to CR 00-2312, which was closed to CR 00-2812, originally had due dates in September and October of 2000, but now essentially had an extension of almost of year with the due date for CR 00-2812 of October 30, 2001.
- 4) One of the CRs closed to the siren CR referenced QCR (Quality Condition Report) 97-0249, written by the quality assurance group to ensure the revision of the administrative procedure that governs the SPEED (spare parts equivalency) process. This QCR had 13 different due dates.

## d. Assessment of Safety Conscious Work Environment

## (1) Inspection Scope

The inspectors interviewed plant staff to assess whether there were impediments to the establishment of a safety conscious work environment. The inspectors also reviewed the structure and implementation of the Employee Concerns Program and reviewed selected CRs and results of the mid-2000 Point Beach cultural survey.

## (2) Findings

From the interviews and record reviews, the inspectors identified no impediments to a safety conscious work environment. Some individuals expressed dissatisfaction with some aspects of the corrective action process. In addition, an anonymous CR (CR 01-0674) that was submitted a week before the inspection began and some of the responses to the cultural survey last summer expressed related dissatisfaction. But the inspectors noted a strong emphasis by management on establishing an atmosphere conducive to employees readily documenting and resolving problems and an overall strong sentiment by interviewed plant staff in documenting problems. The Employee Concerns Program was well structured and implemented.

## 4OA6 Meeting(s)

# .1 Exit Meeting

The inspectors presented the inspection results to Mr. M. Reddemann and other members of licensee management in an exit meeting on April 2, 2001. Licensee management acknowledged the findings presented and indicated that no proprietary information was provided to the inspectors.

# KEY POINTS OF CONTACT

## Nuclear Management Company (NMC)

- L. Armstrong, Design Engineering Manager
- A. Cayia, Plant Manager
- F. Flentje, NRC Coordinator
- R. Jones, 4160V System Engineer
- P. Kleinschmidt, Bolted Fault Project Manager
- R. Mende, Director of Engineering
- B. O'Grady, Operations Manager
- S. Pfaff, General Supervisor, Performance Assessment
- M. Reddemann, Site Vice President
- M. Rinzel, Operations
- D. Schoon, Systems Engineering Manager
- T. Sheley, Operations
- M. Sievert, Breaker Component Engineer
- J. Ullo, Design Engineer

# <u>NRC</u>

- P. Krohn, Senior Resident Inspector
- R. Lanksbury, Chief, Reactor Projects Branch 5
- R. Caniano, Deputy Director, Division of Reactor Safety

# LIST OF ACRONYMS USED

ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CARB	Corrective Action Review Board
CC	Component Cooling Water
CCW	Component Cooling Water
CR	Condition Report
DC	Direct Current
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
EWR	Engineering Work Request
FSAR	Final Safety Analysis Report
INPO	Institute of Nuclear Power Operations
KV	Kilovolt
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LTA	Less Than Adequate
MOV	Motor-Operated Valve
NCV	Non-Cited Violation
NMC	Nuclear Management Company, LLC
NP	Nuclear Power Business Unit Procedure
OA	Organizational Assessment
OE	Operating Experience
OI	Operating Instruction
OOS	Out-Of-Service
PMI	Post-Maintenance Testing
psi	Pounds Per Square Inch
QA	Quality Assurance
QCR	Quality Condition Report
RCE	Root Cause Evaluation
RCP	Reactor Coolant Pump
SDP	Significance Determination Process
SRO	Senior Reactor Operator
SW	Service Water
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# LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire document, but, rather that selected sections or portions of the document 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.

## Nuclear Power Business Unit Procedures (NPs)

- 5.3.1 Condition Reporting System, Revisions 14 and 17
- 5.3.2 Industry Operating Experience Review Program, Revision 10
- 5.3.7 Operability Determinations, Revision 8
- 5.3.9 Corrective Action Program, Revisions 4 and 6
- 5.4.1 Open Item Tracking Systems, Revision 9
- 9.3.1 Procurement of Goods and Services, Revision 3
- 9.3.2 Commercial Grade Dedication of New and Replacement Items, Revision 3
- 9.3.3 Spare Parts Equivalency Evaluation [SPEED], Revision 1
- 10.2.2 Scheduling, Planning, and Implementation On-Line Work, Revision 5

## Other Procedures and Related Documents

Inservice Test (IT)-07B, P-32B Service Water Pump (Quarterly), Revisions 5 and 7 Maintenance Instruction (MI) 29.2, Constant Level Oilers and Sightglasses, Revision 0 Operating Instruction (OI) 65, Post-Maintenance Pressure Testing, Revision 20 OI 106, Facade Freeze Protection, Revisions 14-16 Operations Checklist 1-CL-CC-001, Component Cooling Unit 1, Revision 4 System Operating Procedure 1-SOP-CONT-001, Operating Containment Airlocks, Revision 0

## Condition Reports and Related Corrective Action Program Documents

- 93-0137 Plant Electrical Equipment May be Used in Applications Beyond Fault Current Ratings
- 98-1493 Temporary Modifications Pass Target Due Dates
- 98-2916 MDB Discrepancy on Panel 11L
- 98-3314 EDG Engine Manufacturer, EMD, M.I. 1748 Ambitrol CN Specification
- 99-0009 U1 CCW Pump 1P-11A Operability Concerns
- 99-0077 CCW Piping May Be Frozen
- 99-0219 2A52-75 Breaker was Manipulated Prior to Ensuring Control Switch in Pullout Position
- 99-0227 Planning Failure Stopped Work on 2A52-67
- 99-0251 OE [Operating Experience] Information on 4160 Breakers
- 99-0254 Mod for 4160 Breakers Discrepancies Found
- 99-0255 Unit 2 Restart Issue Failed PMT [Post-Maintenance Testing] for Unit 2 Component Cooling Pump
- 99-0266 4.16 KV [Kilovolt] System Declared Maintenance Rule a(1)
- 99-0309 C02 Control Board Synchroscope Switch Tagout

99-0366	Inconsistency Between FSAR [Final Safety Analysis Report] and TS [Technical Specification] with respect to RCP [Reactor Coolant Pump] Breaker Design Basis
99-0368	4 16 KV Vacuum Circuit Breaker Anomalies
99-0405	Wiring Error Found on Safety Injection Valves
99-0429	TY Wraps Holding 4KV Cables Found Broken or Removed Unit 2 Restart
00-0460	Wrong Size Lugs Found During Breaker Replacement for MCC [Motor Control
33-0-0-	Center] B-45
99-0486	Conductors of a Control Cable Landed Incorrectly
99-0490	Safeguards Breaker Control Not as Expected
99-0491	Shutdown Safety Assessment, Core Cooling Indicator Entered an Unplanned Orange Condition
99-0532	Temp Change Created Conflicting Requirements Between IWP [Individual Work Plant] and Safety Evaluation
99-0538	Relay Found Out of Adjustment During Routine Maintenance
99-0574	Unit 2 Restart Issue, 200deg F - Cracked Resistor in Circuit Board
99-0579	Improperly Installed Wiring Termination (Cocked Screw) Identified
99-0589	Casting on Racking Mechanism Broke
99-0617	Diesel Output Breaker Interlock Concerns
99-0620	Roll Pin was Discovered on the Breaker Lower Supports
99-0634	Condensate Pump Racking Mechanism Breaker Position Interlock Levers
	Damaged
99-0642	Cell Switch Engagement Arm on the Breaker Arm was Noticed Not to be in
	Proper Engagement with the Cell Switch Arm
99-0735	EQ [Environmental Qualification] Limitorque MOVs [Motor-Operated Valves] Not
	Overhauled Within the Required 10 Year Intervals
99-0756	Component Cooling Pump LP [Low Pressure] Start Signal During Test
99-0771	Safety Related EDG Breakers Have a Potential to Misoperate Under Abnormal
	Circumstances
99-0828	PC-24 RCP CC [Component Cooling Water] Flows Don't Match Component
	Instruction Manual
99-0935	Fiberglass Piece Found
99-1170	Component Failures of the Finger Clusters on the 3000 Amp Vacuum Breakers
99-1173	Circuit Breakers in Question
99-1174	Breaker 1A52-17 Failed to Discharge the Operating Springs When the Breaker
00-1330	Potential Degradation of Poplacement Vacuum Breakers
99-1330	LINIT 1 Postart - Wold Crack in Motor Driven Aux Food Pump Posire Line
99-1300	Electrical System/Component Identification Discrepancies
99-1301	SCAO [Significant Condition Advarge to Quality] Action Betential Common
33-1331	Mode Failure Mechanism Affecting Welds in AFW [Auxiliary Feedwater] Pump Recirc Line
99-1427	Evaluation of the Control of Vendor/Instruction Manual Program
99-1429	Excessive Outboard Seal Leakage on 1B CC Pump
99-1467	ESAR Discrepancies with Identification of 4160V Rus Equipment
99-1584	Operation of CC Pump at Less Than Minimum Flow Could Cause Excessive
00 100-	Wear
99-1860	Component Cooling Water Pump Flow Limits Exceeded
99-2101	Possible Capacitor Breakdown Causes Instrument Drift

99-2143	LCO [Limiting Condition for Operation] Unexpectedly Entered Due to Operator Error in Following Work Plan
99-2148	Potential for Non-QA [Quality Assurance] Parts to be Installed on QA Breakers
99-2170	New Style Vacuum Breakers Damaged While Racking Into Switchgear
99-2180	Containment Fan Cooler Tube Plugging Allowance Nonconservative
99-2185	Service Water Flush of the Heat Exchanger Found OOS [Out-Of-Service]
99-2270	New 4.16KV Replacement Vacuum Breaker Failed Pre-Installation Hi-Pot Test
99-2396	Non-Augmented Quality Parts Installed in AQ [Augmented Quality] Breakers
99-2694	Inadequate Tagout for Elevator Equipment Room Heater
99-2704	Adequacy of Wire Lugs Questioned
99-2726	Tech. Spec. 15.3.7.B.1e and DCS [Duty and Call Superintendent]
	Handbook 3.1.29 May Need to be Clarified
99-2905	Cracked Splitter Plate Discovered in Spare 4160V Breaker
99-2949	Kirk Key Interlocks Installed on Unit 2 Bus But not Unit 1
99-2950	Cracks Found in Grout of Switchgear Embedded Mounting
99-2996	Drawing Discrepancies Noted for 4160KV Breaker 1A52-66
99-3053	Component Cooling Stanchions Not in Full Contact With Base Plates
99-3108	No Currently Approved Corrosion Inhibitor Exists for G-01 and G-02
99-3198	Main Feed Pump New Vacuum Breaker Failed PMT
99-3236	Self-Assessment S-A-OPS-99-03 Findings - Operability Determinations
00-0043	ECA [Emergency Contingency Action] 0.0 Unit 1 Rev 24 Attachment C Error
	While Performing JPM [Job Performance Measure] w/AOT
00-0094	Short Circuit Fault Current Calculations
00-0112	RCP Cooling Flow Alarm OOS
00-0128	P-32F-M Thermocouple Installation Not Properly Documented
00-0132	U1 Rx [Reactor] Trip Breaker 'B' Failed Surveillance
00-0141	Schedule Deficiencies for the Planned G-02 Outage
00-0145	Motor Overload Alarm Lit Continuously Without Cause
00-0154	Blown 1A-06 Cubicle Heaters - Evaluate
00-0158	RMP [Routine Maintenance Procedure] 9043-52 EDG G-02 Procedure Problems
00-0164	CC Pump Bearing Oiler Set Lower Than Required
00-0171	LTA [Less Than Adequate] Review of SE [Safety Evaluation] 98-138 (50.59) for
	FPER [Fire Protection Evaluation Report]
00-0178	12-Week Work Process Concern - Not Prepared at E-5
00-0289	LCO for G-02, 2A05 Standby Emerg Power Not Declared in Procedure
00-0290	Bolt Found on Floor in Front of Breaker - Loose Part?
00-0303	Unexpected Alarms While Racking Breaker from Test or Racked Out
00-0306	Standardize the Labeling of All Breakers
00-0311	NUTRK [CR Tracking Software] Close-out Concerns
00-0380	G-02 Extended Time OOS
00-0459	QA-AQ Qualification 4.16 KV Breakers
00-0494	CR History of CIM [Component Instruction Manual] Concerns
00-0501	Loose Bolt on Structural Breaker Components - Cutler-Hammer Westinghouse
00-0507	Discoloration on Through Wall Sleeve Insulators - Bus Inspection
00-0508	Incorrect Documentation With 1200 and 3000 Amp Breakers
00-0513	Lube Manual Incorrect - Breaker Lubrication
00-0514	QA Classification of Packing Kit 850 Hydraulic Cylinder Questioned
00-0536	Unapproved Plant Labeling on Switchgear Panels
00-0545	Handling and Storage of 4.16kV Circuit Breakers

00-0555 Grease Storage Concern 00-0631 **Drawing Configuration Control Issue** 00-0638 Improper Documentation of Corrective Actions for ASME [American Society of Mechanical Engineers] Section XI Leak Test 00-0657 Burned and Missing Insulation in 1A02 00-0658 1A-02 PT [Potential transformer] Connection Surface Corrosion 1A05 Insulating Sleeve Broken 00-0672 00-0673 Loose Hardware in 1A00-82 00-0731 Breaker in Test When Thought to be Racked Out 00-0733 Near Miss - Starting Air to G-01 Not Isolated 00-0776 Loss of Tracking of QA Related Material 00-0777 Improper Documentation for the Removal of Old Equipment 00-0834 G-01 Corrosion Inhibitor SPEED [Spare Parts Equivalency Determination] 00-0850 Potential LER Due to Scheduled Work 00-0876 Adverse trend with RPM Packages CCW Pump Vibration Following Support Adjustment 00-1111 00-1212 Voltmeter for 1A-03 Reading Zero 00-1236 G-01 Voltmeters Miswired 00-1271 Conflicting Information on Drawings 00-1279 Incorrect Work Order Status by ASB SW [Service Water] Pump Calculation Error 00-1369 00-1404 Errors in Calculation 96-0246R2 00-1446 SW System Calculations Common Cause Evaluation 00-1460 Swapping of Pre-Maintained Circuit Breakers Degraded Conditions at Cable Terminations 00-1475 00-1478 Calc 98-0086 and 98-0100 Errors 00-1554 WOs Not on Forced Outage List - Hinder Planning 00-1700 SW (Service Water) Check Valve Repair Parts 00-1796 **CRs Not Written For Rework Items** 00-1810 Trend in Crimping CRs 00-1816 Improper Use of Operations Written Work Orders 00-1863 WO 9919478 Was Moved From K12 to L04 Without Required Approval Improper Terminal (Bent) Installations 00-1866 CC Pump Inboard Bearing Oil Dirtier 00-1872 00-1927 Incomplete QA (Quality Assurance) Records - Inadequate Corrective Actions, Inadequate Verification 00-1994 Coordination and Oversight of 1P-29 LTA 00-2077 **Procurement Evaluation Deficiencies** 00-2095 Water Low Into Through Conduits & Manholes LTA Containment Air Lock Operation 00-2097 SI [Safety Injection] Pump Thermal Overload Relay Concern 00-2111 00-2177 2000 Safety Culture Survey Report - Document & Track Corrective Actions Refurbishment of Foxboro H-line Amplifier 00-2295 00-2312 **Commercial Grade Dedication Program** 00-2423 **Dedication Criteria Changed During Receipt Inspection** 00-2426 Lack of As Found Data During Receipt Inspection 00-2427 **Documenting Discrepancies During Receipt Inspection** 00-2428 Technical Evaluations Do Not Address Equipment Qualification Conflicting Information on Required Valve Position 00-2431

- 00-2483 Ownership and Accountability Problems 00-2780 Improper Closure of a Condition Report 00-2812 Alert and Notification System (ANS) Siren Failure Response Weak 00-2848 Shifting Backlogs from CR to WO 00-2855 Charging Pump Seal Leakage Concern Form For QA Conditional Release 00-2933 00-2943 G01/G04 Lube Oil Analysis Reports Show Silver Trend 00-2946 CAs [Corrective Actions] for EH [Electrohydraulic] System Cold Weather **Problems Ineffective** 00-2996 NMC Operations Self-Assessment 00-3071 Improper Regulator on Hydro Rig Chemistry Rule Based Errors 00-3178 00-3215 MTN [Maintenance] Group Error Rate 00-3299 Damaged Breaker Auxiliary Switches 00-3314 Potential Loss of QA Control for Breakers 00-3369 1A02 Did Not Operate as Expected OA Denied Access to Control Room During Reactor Trip Response 00-3400 00-3555 Fuse Holder Do Not Fit 00-3610 Lapse in Containment Closure 00-3623 **Breaker Racking Mechanisms** 3<sup>rd</sup> Quarter Trend Analysis Results 00-3750 00-3844 Emergency AC [Alternating Current] Power NRC Performance Indicator Degrading 00-3875 Cable Aging Issues 4160 V Breaker Frame Weld Crack 00-3885 2P-001B RCP Coupling Activity - RCS [Reactor Coolant System] Leakage 00-3891 00-4039 Lower Tiered Problem Identification Processes Weakness 00-4046 Facade Freeze Circuits Found Deactivated 00-4134 CAP Process For Closure of Condition Report Not Followed 00-4200 CR Due Date Extensions 00-4217 Mechanical Seal Rework 00-4223 Potential of Service Water Pipe Freeze Audit A-P-00-16, Administrative Controls of Valves, Locks and Switches 01-0093 01-0096 Procedure Misread - Wrong Valve Cycled 01-0131 Locking Device Improperly Installed Status Control of 2SI-897A/B 01-0162 01-0226 Safety Monitoring System Trend 01-0279 Valves Not Locked As Required Valve in AR [Air Ejector] System Found Misaligned 01-0426 01-0674 **Attitudes Towards Condition Reports** 01-0840 Clear Substance Found in DC Panel 01-0846 Particulate in EDG Lube Oil Sample RMS [Radiation Monitoring System] Spike Tripped Forced Vent 01-0863 01-0865 High Vibration on Gas Turbine 01-0887 **Circulating Water Screens Installed Backwards** Flow Switch Power Supplies Not Accurate 01-0894 01-0901 CVCS [Chemical and Volume Control System] Containment Integrity 01-0940 U1 Reactor Coolant Drain Tank RCDT Level Increase
- 01-0950 D08 Control Power Supply Wiring

- 01-0967 Diesel Generator Breaker Did Not Close When Switch Closed
- 01-1001 Corrective Actions Not Documented For Effectiveness Review
- 01-1009 Crew/Simulator Performance Issues

#### Quality Condition Reports (QCRs)

- 97-0175 Inconsistencies in CL-13B, CL-13D, P&IDs [Piping and Instrumentation Diagrams] and CHAMPS [Software for Work Orders and Equipment Database]
  97-0249 Process Improvements SPEED [Spare Parts Equivalency Determination] NP 9.3.3
- 99-0019 Component Maintenance Program Found Not to Be Fully Implemented
- 00-0004 Corrective Action Program (CAP) Implementation Non-Compliance [and Associated Apparent Cause Evaluation]
- 01-0001 Failure to Take Timely Corrective Action to Prevent Recurrence of an Issue Adverse to Quality, FME [Foreign Material Exclusion] Controls at the Spent Fuel Pool

#### Work Orders

9802243	1A52-57 Install Vacuum Breaker
9802244	1A52-58 Install Vacuum Breaker
9802248	1A52-60 Install Vacuum Breaker
9907742	Troubleshoot and Repair Breaker
9908348	1A52-64 Seismic Restraint
9908349	1A52-65 Seismic Restraint
9917843	Replace Fuse Reducer
9918996	Adjust Supports
9920293	Remove and Replace Relay
9921398	Reinstall Relay After Repair
9925379	1A-02 Correct Barrier Installation
9925555	P-32F SW Pump Discharge Joint
9926690	HX-55A-1 Open/Close 3 <sup>rd</sup> Zebra Kill
9927240	Check Calibration
9928622	Adjust Pipe Hanger
9932289	1200-28, 1P25B/Aux Switch Guard
9932300	1200-40, 1P-25A/Aux Switch Guard
9932343	1200-02, 2P25A/Aux Switch Guard
9932348	1200-07, 2X12/Aux Switch Guard
9932361	1200-44, 2P27B/Aux Switch Guard
9932929	A52-DHVR-3000-1 BKR Failed to Close
9933800	1X-2 Inspect CKT Leads
9936376	P-32A Adjust Packing

#### Audits and Assessments

NMC Employee Concerns Program, Safety Culture Survey Report of Point Beach Nuclear Plant, June 2000 2000 NMC Operations Assessment, July 2000

- NMC Maintenance Assessment MA-99-05, PBNP S-A-MT-00-02, Maintenance Self-Assessment, June 2000
- A-P-00-01, Organizational Assessment Audit Report, First Quarter 2000 Operations Audit
- A-P-00-02, Organizational Assessment Audit Report, First Quarter 2000 Maintenance Functional Area Audit
- A-P-00-06, Organizational Assessment Audit Surveillance Report, Second Quarter 2000 Operations Audit
- A-P-00-07, Organizational Assessment Audit Report, Maintenance Audit, April-July 2000
- A-P-00-11, Organizational Assessment Audit Report, Operations Audit,
- A-P-00-14, Organizational Assessment Audit Report, Plant Support [including Corrective Action Program]
- A-P-00-16, Organizational Assessment Audit Report, Fourth Quarter 2000 Operations Audit
- S-A-CA-00-01, Self-Assessment of the NPBU Corrective Action Program Versus INPO's Nuclear Industry Effective Principles for Corrective Action Programs, February 2000
- S-A-CA-00-02, Self-Assessment of Sub-Tier Problem Identification & Reporting Processes, December 2000
- S-A-CA-01-01, Assessment of Point Beach Corrective Action Program, February 2001
- S-A-MT-00-01, Maintenance Self-Assessment on Welding and Brazing, February-March 2000
- S-A-MT-00-02, Maintenance Self-Assessment Against INPO [Institute of Nuclear Power Operations] Standards, June 2000
- S-A-MT-00-03, Forced Outage Readiness Maintenance Department, June 2000
- S-A-MT-00-04, Diesel Generator G-02 Preventive Maintenance Overhaul, February-March 2000
- S-A-NSS-00.01, Commercial Grade Dedication Self-Assessment, July 2000
- S-A-OPS-00-01, Operations Leadership and Management, March 2000
- S-A-OPS-00-02, Plant Status Control and Configuration Management, May 2000
- S-A-OPS-01-03, Special Assessment/Evaluation of Danger Tagging Performance Trends, January 2001
- S-A-PPG-00-01, Self-Assessment of U1R25 Outage, January 2000
- S-A-PPG-00-04, Self-Assessment of the 12-Week [Work] Scheduling Process, June-August 2000

## Other Documents Reviewed

NMC Operations Assessment of Point Beach

- NMC Employee Concerns Program: Safety Culture Survey Report of Point Beach Nuclear Plant, June 20, 2000
- Memo, NMC Operations Assessment of Point Beach, November 8, 2000
- Memo NPM 99-1257, Safety Conscious Work Environment, November 1999

Memo NPM 2000-0240, February 2000 Corrective Action Program Performance Indicators Memo NPM 2001-0018, Refresher on Corrective Action Program Expectations, January 2001 Memo, NPM 2001-0106, Use of The Corrective Action Program/Safety Culture, February 2001 Memo, NPM 2001-0122, January 2001 Corrective Action Program Performance Indicators Engineering Work Request (EWR) 97-116, Replace G01 and G02 Controls

- EWR 98-164, Action-Pak Electrolytic Capacitors
- EWR 99-132, EDG Breaker Control Circuit Switch Changes to Avoid Anti-Pump Seal-in, CR 99-0771
- History of CIM [Component Instruction Manual] Concerns, CARB [Corrective Action Review Board] Root Cause Evaluation Addendum, August 29, 2000
- OEG [Operating Experience Group Guide] 001, Root Cause Evaluation, Revision 4

OE 9637, Partial Loss of Offsite Power

- OE 11115, Plant Trip Due to Faulted Relay Cable From Substation
- OE 11121, Station Service Transformer Cable Failure and Inadvertent Auxiliary Feedwater Auto-Start
- Operations Newsletter, December 2000, January March 2001

Corrective Action Trend Report, 4th Quarter 2000, dated February 14, 2001

## Root Cause Evaluations (RCEs)

- 99-003, Unit 1 Safety Injection Recirculation Line Freeze Event
- 99-055, Improper Positioning of the Turbine Driven AFW [Auxiliary Feedwater] Pump Discharge Valves
- 99-081, Socket-Weld Failures in Auxiliary Feedwater Pump Recirculation Piping
- 99-105, Construction Engineering Contractor G01/G02 and Other Work Issues
- 00-043, Common Cause Assessment Calculations

## Effectiveness Reviews

- RCE 98-086, Temporary Modification Process and Control Problems
- RCE 98-146, Elevated Dissolved Oxygen Concentration During the Unit 1 Reactor Coolant System Heatup From Refueling Outage
- RCE 99-036/CR 99-0486, Miswiring of 2SI-857A Control Cable Wiring During Installation of Modification 97-085\*A
- RCE 99-136/CR 99-2780, Unplanned ESF [Engineered Safety Feature Actuation] During 1P-15A Maintenance PMT
- RCE 00-007, Unit 1 Manual Trip Due to Decreasing Forebay Water Level

## Licensee Event Reports

- 50-266/97-032-00, Inadequately Rated Electrical Buses Could Disable Switchgear and Cause Secondary Fires that Prevent Shutdown Per Appendix R
- 50-266/97-038-00; 50-301/97-038-00, Standby Emergency Power inoperable in Excess of Technical Specifications Allowed Outage Time

## DOCUMENTS REQUESTED FROM THE LICENSEE PRIOR TO ONSITE INSPECTION

Administrative procedures related to:

the corrective action/condition reporting process trending and analysis management assessment of plant performance self-assessment program external operating experience operability determinations employee concern program procedure improvement process temporary procedure change process

Audits and self-assessments conducted in 2000 and 2001 in the following areas:

corrective action/condition process maintenance/work control operations

The 2000 maintenance rule report

Corrective action effectiveness reviews conducted in 1999 and 2000

Assessments or trending conducted in 2000 and 2001 as required by the above administrative procedures

A listing of:

root cause evaluations completed in the past two years condition reports generated in the past two years related to corrective actions work order and condition reports generated in the past two years related to CCW and the safety-related 4160-volt systems temporary modifications operability determinations