July 27, 2001

EA-01-167

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 50-266/01-10; 50-301/01-10

Dear Mr. Reddemann:

On June 30, 2001, the NRC completed an inspection at your Point Beach Nuclear Plant. The enclosed report documents the inspection findings which were discussed on July 2, 2001, with Mr. A. Cayia and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, this inspection was a routine review of plant activities by the resident inspectors and a review of radiation protection access control to radiologically significant areas and radioactive material processing and transportation by a regional inspector. In addition, the inspection included a review of the shutdown of Unit 2 and the downpower of Unit 1 because of a large influx of fish into the circulating water and service water forebay.

Based on the results of this inspection, the inspectors identified two issues of very low safety significance (Green). Both of the issues were determined to involve violations of NRC requirements. However, because of their very low safety significance and because they have been entered into your corrective action program, the NRC is treating these issues as Non-Cited Violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny these Non-Cited Violations, you should provide a response with the basis for you 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, its enclosure, and your response, if you provide one, 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/NRC/ADAMS/index.html (the Public Electronic Reading Room).
.

Sincerely,

Original signed by
Roger D. Lanksbury

Roger D. Lanksbury, Chief
Projects Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report 50-266/01-10; 50-301/01-10

cc w/encl: R. Grigg, President and Chief
Operating Officer, WEPCo
R. Anderson, Executive Vice President
and Chief Nuclear Officer
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

DOCUMENT NAME: G:\POIN\PB 2001-10.1 drp.wpd

To receive a copy of this document, indicate in the box:"C" = Copy without enclosure "**E**"**=** Copy with enclosure"**N**"**=** No copy

OFFICE	RIII		RIII					
NAME	MKunowski:dtp		RLanksbury					
DATE	07/27/01		07/27/01					

OFFICIAL RECORD COPY

ADAMS Distribution:
CMC1
DFT
BAW
RidsNrrDipmIipb
GEG
HBC
PGK1
C. Ariano (hard copy)
DRPIII
DRSIII
PLB1
JRK1

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-266; 50-301
License Nos:	DPR-24; DPR-27
Report No:	50-266/01-10; 50-301/01-10
Licensee:	Nuclear Management Company, LLC
Facility:	Point Beach Nuclear Plant, Units 1 & 2
Location:	6610 Nuclear Road Two Rivers, WI 54241
Dates:	May 9 through June 30, 2001
Inspectors:	P. Krohn, Senior Resident Inspector R. Powell, Resident Inspector Z. Dunham, Resident Inspector, Kewaunee D. Schrum, Reactor Engineer D. Nelson, Radiation Specialist
Approved by:	Roger D. Lanksbury, Chief Projects Branch 5 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000266-01-10, IR 05000301-01-10, on 05/09-06/30/2001, Nuclear Management Company, LLC, Point Beach Nuclear Plant, Units 1 & 2. Maintenance Rule, Emergent Work, Surveillance Testing.

This report covers a 7-week routine resident inspection and a baseline radiation protection inspection. The inspection was conducted by resident and regional specialist inspectors. Two Green findings were identified, one each in the areas of maintenance rule and surveillance testing. Both of these findings involved a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the Significance Determination Process does not apply 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 **http://www.nrc.gov/NRR/OVERSIGHT/index.html.**

A. Inspector-Identified Findings

Cornerstone: Mitigating Systems

- Green. A Non-Cited Violation was identified for the licensee erroneously returning the auxiliary feedwater system to (a)(2) status prior to meeting licensee established (a)(1) performance goals in December 2000. The licensee's inaccurate monitoring of system unavailability against established (a)(1) unavailability goals was determined to be the cause of the error.

  Since no actual loss of the safety function of the auxiliary feedwater system occurred, this issue was evaluated as having very low safety significance. (Section 1R12)

- Green. A Non-Cited Violation was identified for failure to follow the requirements of Technical Specification 15.3.7.B.1.g following a trip of the G-03 emergency diesel generator during monthly surveillance testing on June 24, 2001. Specifically, within 24 hours, the licensee failed to show that the redundant power supplies (emergency diesel generators G-01 and G-02) to safeguards bus 1A05 were not susceptible to the same failure mechanism that tripped G-03 by either completing a common cause evaluation or starting the redundant standby power supplies. With a common cause evaluation not yet completed, G-02 and G-01 were not started until 26 and 29 hours, respectively, after the initial G-03 trip.

  Since G-01 and G-02 surveillance tests were subsequently performed satisfactorily and G-04 had been aligned to supply the 1A06 safeguards bus, no actual loss of safety function for greater then the technical specification allowed outage time existed and the issue was assessed as having very low safety significance. (1R22.4)

- Licensee-Identified Findings

  A violation of very low significance which was identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned appear reasonable. These violations are listed in Section 4OA7 of this report.

Report Details

Summary of Plant Status

Unit 1 began the inspection period in its Cycle 26 refueling outage (which began on April 6, 2001). On May 11, Unit 1 was made critical after completion of outage activities. Later that day, the Unit was shutdown after it was determined that the reactivity computer had been improperly configured. Unit 1 was again made critical on May 12 and was subsequently synchronized to the offsite electrical distribution grid on May 13. Full power operation was reached on May 17. Reactor power remained at or near 100 percent throughout the remainder of the inspection period except for a short period on May 20, when power was reduced to 91 percent in response to decreasing reactor coolant pump (RCP),1B RCP, number one seal return flow; a few hours on May 24 through 25 when reactor power was reduced to 79 percent for condensate cooler cleaning; a few hours on June 19 through 20 when reactor power was reduced to 95 percent for condensate cooler cleaning; and, finally, on June 27 when reactor power was reduced to 79 percent following an influx of small fish that led to decreasing pump bay level. Unit 1 returned to full power operation on June 30.

Unit 2 operated at or near 100 percent power until May 19 through 21, when power was reduced to approximately 50 percent for condenser waterbox cleaning. Following return to full power operations, the Unit was reduced to 83 percent power on May 28 through 29 for condensate cooler cleaning. Unit 2 then operated at or near 100 percent power until the unit was manually tripped on June 27, 2001, when a large influx of small fish at the circulating water intake resulted in blockage of the intake traveling water screens and lowering pump bay level. Unit 2 returned to criticality on June 29, 2001, and at the end of this inspection report period was at approximately 75 percent power, proceeding to full power operations.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Unit 1 Component Cooling Water (CCW) System Partial Walk-down

a. Inspection Scope

The inspectors performed a partial walk-down of accessible portions of the Unit 1 CCW system to verify system operability. The CCW system was selected due to its high risk significance and in-progress CCW heat exchanger work. The inspectors used CCW system checklists (CLs) and system drawings to accomplish the inspection.

During the walk-down, the inspectors verified the position of open, shut, locked, and throttled valves; verified that control power was aligned to select motor-operated valves; inspected motor-operated valve material condition; and verified proper lubricating oil levels in the CCW pump reservoirs to ensure system operability. Additionally, the inspectors verified instrumentation valve configurations and whether appropriate meter indications existed. Control room switch positions were also verified by the inspectors to ensure proper system configuration. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

.2 Service Water (SW) System Partial Walk-down

a. Inspection Scope

The inspectors performed a partial walk-down of the SW system to verify that valves and breakers were in the proper position to perform their safety-related function. The inspectors used the SW safeguards lineup CL and SW system drawings to accomplish the inspection. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

.3 Unit 1 Auxiliary Feedwater (AFW) Complete System Walk-down

a. Inspection Scope

The inspectors performed a complete walk-down of accessible portions of the Unit 1 AFW system to verify system operability. The AFW system was selected due to its high risk significance and the configuration changes made during Unit 1 refueling activities. The inspectors used AFW system CLs and system drawings to accomplish the inspection.

The inspectors walked down the system to verify the correct position of valves and breakers in the AFW system using the system diagrams and CLs. The inspectors also observed instrumentation valve configurations and whether appropriate meter indications existed. Control room switch positions were also verified by the inspectors. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors walked down the following areas to assess the overall readiness of fire protection equipment and barriers:

- Primary Auxiliary Building HVAC [Heating, Ventilation, and Air Conditioning] Equipment Room, Fire Zone 159
- G-01 - 'A' Train Emergency Diesel Generator (EDG) Room, Fire Zone 308
- G-02 - 'B' Train EDG Room, Fire Zone 309
- CCW Heat Exchanger Room, Fire Zone 237
- Alternate Shutdown Panel, Fire Zone 224
- Unit 1 Charging Pump Rooms, Fire Zones 152, 153, and 154
- Unit 2 Charging Pump Rooms, Fire Zones 163, 164, and 165

Emphasis was placed on the control of transient combustibles and ignition sources, the material condition of fire protection equipment, and the material condition and operational status of fire barriers used to prevent fire damage or propagation. Area conditions/configurations were evaluated based on information provided in the licensee's Fire Protection Evaluation Report.

The inspectors looked at fire hoses, sprinklers, and portable fire extinguishers to verify that they were installed at their designated locations, were in satisfactory physical condition, and were unobstructed. The inspectors also evaluated the physical location and condition of fire detection devices. Additionally, passive features such as fire doors, fire dampers, and mechanical and electrical penetration seals were inspected to verify that they were located per Fire Protection Evaluation Report requirements and were in good physical condition. The inspectors also checked the availability of spare residual heat removal and CCW pump cables and motors to ensure that the bases of previously granted 10 CFR Part 50, Appendix R, exemption requests continued to be met. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors reviewed internal and external flooding design bases documents and risk analyses to determine if existing configurations and mitigation plans were consistent with design requirements and risk analysis assumptions. The inspectors focused on two risk-significant flood zones, the auxiliary building and the circulating water pumphouse/SW pump room. Walk-downs were performed in these areas to verify that all direct and indirect sources of flooding had been identified in the current licensing and design bases as well as probabilistic risk assessment studies. The inspectors checked door gaps, latch pin configurations, door bracing devices, door opening/closing directions, floor drain configurations and communication paths, modifications made to EDG ventilation louvers, circulating water pumphouse wave barrier installations, and residual heat removal pump flood barrier configurations to verify that the design provisions to prevent and mitigate flooding had been installed as specified. Where exceptions were identified, the inspectors verified that compensatory measures were in place and that the exceptions were entered into the licensee's corrective action program. The inspectors also reviewed selected abnormal operating procedures to verify that credited operator actions were proceduralized.

The inspectors reviewed various corrective action program documents (Condition Reports (CRs)) including CR 01-2076, “Auxiliary Feedwater Pump Room Floor Drains,” which was initiated as a result of this inspection activity and was reviewed as part of the inspection scope. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule requirements to ensure that component and equipment failures were identified, entered, and scoped within the maintenance rule and that select structures, systems, or components were properly categorized and classified as (a)(1) or (a)(2) in accordance with 10 CFR 50.65. The inspectors reviewed station logs, maintenance work orders, (a)(1) corrective action plans, selected surveillance procedures, and a sample of CRs to verify that the licensee was identifying issues related to the maintenance rule at an appropriate threshold, and corrective actions were appropriate. Additionally, the inspectors reviewed the licensee’s performance criteria to ensure that the criteria adequately monitored equipment performance and verified that licensee changes to performance criteria were reflected in the licensee’s probabilistic risk assessment. Specific components and systems reviewed were:

- Charging Pumps
- CCW System
- SW System
- EDGs

The documents listed at the end of the report were used by the inspectors during assessment of this area, including CRs generated as a result of inspection activities.

b. Findings

AFW System

The licensee returned the AFW system from (a)(1) to (a)(2) on December 18, 2000, based upon the erroneous belief that the (a)(1) action plan goals had been met. The inspectors determined, however, that the AFW system had not met established (a)(1) goals. The inspectors reviewed station logs, CRs, and work orders to independently determine AFW unavailability hours. The inspectors identified that 6.5 hours of P-38A ('A' train motor-driven AFW pump, shared by both units) unavailability from November 1999 was not included in the licensee's calculated unavailability hours. With the addition of the 6.5 hours, the inspectors determined that P-38A, and thus AFW, exceeded its maintenance rule (a)(1) goal of 160 hours/2 years in December 2000 at the time it was returned to (a)(2). The system was, therefore, incorrectly returned to (a)(2) without meeting the requirements set forth in the licensee's (a)(1) action plan.

Paragraph (a)(2) of 10 CFR 50.65 states, in part, that monitoring as specified in 10 CFR Part 50.65(a)(1) was not required where it had been demonstrated that the performance or condition of a structure, system, or component (SSC) is being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remains capable of performing its intended function. Contrary to this, the licensee failed to demonstrate that the performance of the AFW system was being effectively controlled through the performance of appropriate maintenance. Specifically, the licensee placed the AFW system in (a)(2) when its unavailability was in excess of the established (a)(1) goal. This violation is being treated as a Non-Cited Violation (NCV) (NCV 50-266/01-10-01; 50-301/01-10-01) consistent with Section VI.A. of the NRC Enforcement Policy. This violation is in the licensee’s corrective action system as CR 01-1671, “Unavailability Hours for AFW Pump Not Accurate.”

The inspectors determined that the failure to adequately demonstrate the performance of appropriate maintenance constituted a condition which, if left uncorrected, could have become a more significant safety concern. Additionally, the inspectors consulted with NRC Office of Enforcement personnel and referred to Office of Enforcement guidance documents to establish that the violation was more than minor as stated in Appendix B of Inspection Manual Chapter 0610*. The inspectors also determined that the issue could credibly affect the operability, availability, reliability, or function of a train in the AFW system. Using the Significance Determination Process, this issue was evaluated as having very low risk significance (Green) since no actual loss of the safety function of the AFW system occurred. This evaluation also closed Unresolved Item (URI) (URI 50-266/01-08-02; 50-301/01-08-02).

Additional Observations

The inspectors identified additional errors in maintenance rule unavailability monitoring during the inspection period. The observations are not violations of 10 CFR 50.65(a)(2) since the demonstrations that the performance or condition of an SSC being effectively controlled through the performance of appropriate preventive maintenance were not invalidated by the errors. Specifically:

- On May 14, 2001, the inspectors identified errors with unavailability data for the 1P-11A and 2P-11B CCW pumps. Licensee followup determined that the 2P-11B data omitted 30 hours of unavailability and the 1P-11A data omitted 3 hours of unavailability and identified an additional 3 hours of unavailability for 1P-11B. Although the CCW system remained in (a)(2) status, the 30 hours of unavailability represented 20 percent of the 2-year unavailability criteria for the pump.

- On May 16, 2001, the inspectors identified numerous instances where unavailability time accumulated during monthly chemical and volume control system (CVCS) charging pump preventive maintenance was omitted from reported unavailability data.

Taken collectively, the AFW system (28.62 percent), CCW system (7.73 percent), and the CVCS (1.94 percent) represented 38.29 percent of the Point Beach Nuclear Plant 1996 Probabilistic Risk Assessment Model Fussell-Vesely importance. Fussell-Vesely importance is the fraction or percentage of the total core damage frequency that is attributable to the failure of the system. The above issues were entered into the licensee's corrective action program as CR-1684, "Maintenance Rule Unavailability Time Reporting."

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

.1 Risk Assessment Reviews

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of plant risk, scheduling, configuration control, and performance of maintenance associated with planned and emergent work activities to verify that scheduled and emergent work activities were adequately managed. In particular, the inspectors reviewed the licensee's program for conducting maintenance risk safety assessments to verify that the licensee's planning, risk management tools, and the assessment and management of on-line risk were adequate. The inspectors also reviewed licensee actions to address increased on-line risk during periods when equipment was out-of-service for maintenance, such as establishing compensatory actions, minimizing the duration of the activity, obtaining appropriate management approval, and informing appropriate plant staff, to verify that the actions were accomplished when on-line risk was increased due to maintenance on risk-significant structures, systems, or components. When risk-significant equipment was taken out-of-service, the inspectors reviewed selected tagouts to ensure that no unintentional equipment had been removed from service which would increase the assumed risk profile. The following specific activities were reviewed:

- The maintenance risk assessment for work planned for the week beginning May 5, 2001. This included the return of Unit 1 to normal operating temperature and pressure following completion of refueling outage, U1R26, and the transition from the qualitative risk assessment of key safety functions while shutdown to the quantitative on-line risk monitor. Other activities reviewed for risk impact included SW pump inservice testing, a G-02 monthly diesel surveillance test, turbine-driven and motor-driven AFW pump control circuit tests, reactor protection system logic testing, and AFW pump stroke time testing. Finally, the inspectors reviewed CR 01-1760, "Test Activity Missed in Risk Profile," which was independently identified by the inspectors as a result of this inspection activity and the duty shift technical advisor while performing risk assessment activities on May 6, 2001.

- The maintenance risk assessment for work planned for the week beginning May 27, 2001. This included planned maintenance on the Unit 1 'B' CCW pump and surveillance testing of the 'B' motor-driven AFW pump.
- The maintenance risk assessment for work planned for the week beginning June 17, 2001. This included planned maintenance on the Unit 1 'A' charging pump and the 'B' CCW heat exchanger. Emergent work activities included troubleshooting of the Unit 1 'B' main feedwater regulating valve control circuitry and a Unit 1 downpower to facilitate condensate cooler cleaning.

The documents listed at the end of the report were used in the review.

b. Findings

No findings of significance were identified.

.2 (Closed) URI 50-301/01-08-03: Unit 2 Risk Profile Underestimated. During April 19 through 21, 2001, the licensee secured power to the Unit 1, 480-volt alternating current (AC) safeguards bus, 1B03, as part of U1R26 planned refueling outage activities. During a review of risk assessment activities, the inspectors identified that pump P-206A, "EDG G-01 Fuel Oil Transfer Pump," had not been included in the risk profile of Unit 2, which was operating at 100 percent power. Subsequent review by a probabilistic risk assessment engineer identified that, in addition, another component, P-35A, "Electric-Driven Fire Pump," had also been omitted from the Unit 2 risk assessment. The combined effect of not including P-206A and P-35A in the Unit 2 risk profile raised the core damage frequency from a factor of 6.9 times baseline risk (2.63E-4/year) to approximately 13.1 times baseline risk (5.01E-4/year). Bus 1B03 was de-energized for approximately 4 hours when the P-206A and P-35A risk assessment errors were identified. The 1B03 work window had been scheduled for 42 hours duration and actually lasted 49.1 hours. The inspectors noted that if the 1B03 bus de-energization had proceeded without the error being identified, the increase in core damage probability would have been 1.34E-6.

A Region III risk analyst (Senior Reactor Analyst) familiar with the licensee's probabilistic risk assessment model and risk assessment tools determined that the licensee's calculation of the increased Unit 2 risk from not correctly modeling P-206A and P-35A was appropriate. Although the instantaneous core damage frequency was relatively high (5.01E-4/year), the change in core damage probability was very low (1.09E-7) due to the short duration before the error was identified (4 hours).

The inspectors reviewed the deterministic, qualitative risk assessment performed by the licensee prior to removing 1B03 from service to determine if P-206A and P-35A had been appropriately considered outside of the Unit 2 probabilistic, quantitative risk assessment that was found in error. The inspectors found that on a deterministic, qualitative basis, the licensee had decided to provide temporary power to P-206A from the redundant Unit 1 safeguards 480-volt bus. In addition, while electric-driven fire pump P-35A was not supplied with temporary power while 1B03 was removed from service, the licensee took deliberate steps to ensure that the redundant fire pump (diesel-driven fire pump P-35B) remained operable while P-35A was out of service. Despite the Unit 2 probabilistic risk assessment having been in error, the qualitative considerations given to P-206A and P-35A represented an acceptable deterministic risk assessment. Therefore, no violation of regulatory requirements was determined to have occurred and this URI was closed. This issue was included in the licensee's corrective action program as CR 01-1380.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the operability evaluations associated with the CRs listed below to verify that they addressed the applicable current licensing basis requirements and commitments, and provided an adequate basis for justifying operability. Independent reviews were conducted and included a discussion with licensee personnel and reviews of design and licensing basis documentation.

- CR 01-1821, "'B' RCP [Reactor Coolant Pump] Seal Leakoff Concern" and CR 01-1832, "Reactor Cooling Pump (RCP) Vibration Alarm"

  These CRs addressed an unexpected decrease in the 1B RCP number one seal leakoff flow rate below the abnormal operating procedure automatic entry condition of 0.8 gallons per minute (gpm). At the time the seal flow degradation occurred, a manual blend to the volume control tank had been initiated to support letdown system demineralizer equilibration. The inspectors reviewed system configuration and response during the event, plant process computer trend information, and the control room response to the unexpected alarm to determine if any seal package degradation had occurred. The inspectors also interviewed selected engineering personnel and periodically monitored control room indications to verify satisfactory performance of the 1B RCP seal package. The inspectors considered potential correlations between the decrease in the 1B RCP number one seal leakoff flow rate and a 1B RCP vertical frame vibration alarm that was received two days after the initial flow decrease.

- CR 01-2026, "Containment Design Pressure Issue," CR 00-1304, "Failure to Consider Single Failure To Close FRV [Feedwater Regulating Valve] to Faulted SG [Steam Generator] - Containment Pressure," and CR 99-0153, "Some Accident Re-analyses of Containment Integrity Using Thermal Upgrade Parameters Do Not Meet FSAR [Final Safety Analysis Report] Limits"

  These CRs addressed a nuclear steam supply system, vendor-identified main steam line break (MSLB) accident scenario at a new uprated power level. At the uprated power level, a MSLB accident in which the main feedwater regulating valve failed to isolate caused peak primary containment design pressure to be exceeded by 4.2 pounds per square inch gauge. The calculations performed by the vendor used a reactor power value of 1650 megawatts thermal. Point Beach Units 1 and 2 are currently licensed to a maximum power level of 1518.5 megawatts thermal. The inspectors reviewed the vendor's and licensee's MSLB calculations, the licensee's initial operability determination, the current design and licensing bases, the application of selected computer codes to the postulated accident scenario, and the corrective action program history to understand the implications of a MSLB accident with failure of the feedwater regulating valve to isolate at the current licensed power level. Finally, the inspectors reviewed licensee plans to analyze the postulated accident scenario at the current license power level to ensure that containment peak pressure results were obtained in a timely manner.

- CR 01-1105, "MOV [Motor-Operated Valve] Failed to Shut Remotely"

  This CR addressed the failure of a residual heat removal to containment spray pump suction cross-connect valve to remotely shut after being manually opened slightly during testing of the containment spray system.

- CR 01-2109, "Structural Integrity of U1 Charging Pump Support Questioned"

  This CR addressed a potential degradation of the structural integrity of the west wall of the Unit 1 'A' charging pump cubicle following identification of spalling and missing concrete near a support for the charging pump discharge line.

- CR 01-1725, "Loss of Generator Protection"

  This CR addressed having the Unit 1 'B' train reactor protection switchgear and the main generator 20AST and X01 lockout circuits on the same train power supply.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (71111.16)

a. Inspection Scope

The inspectors reviewed OWAs to identify any potential effect on the function of mitigating systems, or the ability of operators to respond to an event and implement abnormal and emergency operating procedures. The inspectors interviewed selected operations and engineering licensee personnel and evaluated the following OWA:

- OWA 0-94C-001, "Incorrect Operation of Condenser Steam Dump Valves"

This OWA discussed erratic operation of the condenser steam dump valves which could cause main steam line valve isolation during reactor trips. With the main steam isolation valves shut during a steam generator tube rupture event, release of steam and radioactivity to the environment via the steam generator atmospheric steam dump valves could occur. The inspectors reviewed past and planned modifications to the condenser steam dump valves to ensure that acceptable plans existed to correct the root cause of the problem, valve overcapacity.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed the permanent plant modifications made to the Unit 1 'A' and 'B' containment fan coolers (CFCs) and the accident fan motor coolers during the U1R26 refueling outage to verify that design bases, licensing bases, and thermal performance capabilities were maintained. The inspectors reviewed vendor CFC thermal performance testing data to verify that the modifications made to the CFC units were capable of removing the design basis heat load as discussed in the FSAR. The inspectors considered the most recent design basis accident peak containment temperature calculations to assess the resultant impact on CFC SW system waterhammer analyses. Licensee response to Generic Letter 96-06, "Assurance of Equipment Operability and Containment Integrity during Design Basis Accident Conditions," was also reviewed to verify that permanent modifications made to the CFCs maintained all previous NRC commitments. Finally, the inspectors reviewed the CFC post-modification testing requirements described in the modification package to verify that the licensee had adequately tested CFC performance capabilities prior to returning Unit 1 to power operations. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Pressurizer Power-Operated Relief Valve (PORV) Instrument Air Inlet Check Valves

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities conducted in accordance with Inservice Test (IT) IT 200, "Pressurizer Power-Operated Relief Valves and Block Valves (Cold Shutdown) Unit 1," Revision 19, following maintenance on the pressurizer PORV instrument air inlet check valves to verify that the test was adequate for the scope of the maintenance work which had been performed. The check valves perform the safety-related function of closing to prevent any backleakage of nitrogen from the pressurizer PORV nitrogen supply in the event of a loss of instrument air while the low temperature overpressure system is operable. The inspectors reviewed the procedure to verify acceptance criteria consistency with licensing and design basis requirements. Finally, the inspectors reviewed test data to verify that the test data were complete, appropriately verified, and met the requirements of the testing procedure. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

.2 AF-4019 Trim Replacement

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities conducted in accordance with IT 10B, "Test of Electrically-Driven Auxiliary Feed Pumps and Valves With Flow to Unit 2 Steam Generators (Quarterly)," Revision 8, following trim replacement on AF-4019, P-38B discharge pressure control valve, to verify that the test was adequate for the scope of the work which had been performed. The valve is designed to automatically control the discharge pressure of P-38B to achieve design flowrate. The inspectors evaluated test results to verify that the valve stroke time was consistent with design basis requirements. Since the trim replacement affected the performance of the valve, due to valve stroke length and regulator setpoint changes, the inspectors also reviewed new inservice testing acceptance criteria developed for the valve based on reference values obtained during the post-maintenance testing. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

.3 Unit 2 Turbine-Driven AFW Pump Bearing Oil Change and Lubrication

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities conducted in accordance with IT 09A, "Cold Start of Turbine-Driven Auxiliary Feed Pump and Valve Test Unit 2 (Quarterly)," Revision 24, following a pump and turbine bearing oil change and greasing of the steam supply overspeed trip and throttle valve. The inspectors reviewed completed post-maintenance test records and walked down portions of the system to verify that bearing lubrication devices and the overspeed trip mechanism had been properly returned to service. Post-maintenance vibration levels and acceptance criteria were reviewed to verify that no bearing degradation had occurred as a result of draining and refilling the bearing reservoirs. Valve stroke timing results and methodology were compared against the inservice testing acceptance criteria to verify that the maintenance did not adversely affect the turbine-driven AFW pump recirculation capabilities. The documents listed at the end of the report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities (71111.20)

a. Inspection Scope

The inspectors observed work activities associated with the Unit 1 refueling outage, U1R26, which began on April 6, 2001, and ended May 13 when the unit was synchronized to the offsite electrical distribution grid. The inspectors assessed the adequacy of operations activities during the plant heatup, pressurization, and startup, and other outage related activities such as configuration management, clearances and tagouts, and safety assessments. Additionally, the inspectors reviewed mode change prerequisites for conformance to approved site procedures and compliance with Technical Specifications (TSs). The following major activities were observed or performed:

- outage planning meetings
- unit heatup and pressurization
- reactor startup
- monitoring and verification of nuclear instrument operability during core alterations
- walk-downs of reactor coolant system boundary integrity following system hydrostatic testing
- containment closure tours
- walk-downs to verify that all debris which could inhibit mitigating the effects of a design basis accident were removed from the primary containment
- a review of selected portions of startup physics, primary system, and control rod drop tests
- other general outage activities, including foreign material exclusion controls and safety shutdown assessments

The documents listed at the end of the report were used in the review.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 G-03 EDG Generator Monthly Surveillance Test

a. Inspection Scope

The inspectors reviewed the design requirements and observed surveillance testing of the Unit 1, 'B' train EDG, G-03, both locally and from the control room on May 27, 2001. Prior to engine start, the inspectors verified electrical distribution switchyard configurations, safeguards bus control alignments, and engine prelube system lineups to ensure proper engine loading and to check for inadvertent preconditioning during the surveillance test. Following engine start, the inspectors performed walk-downs of the running engine and associated auxiliaries. Walk-downs included 4160- and 480-volt AC safeguards buses, fuel oil transfer pump automatic start and stop sequences, and EDG room exhaust fan and air-cooled radiator rooms. During the G-03 surveillance test, the inspectors also performed a walk-down of the G-01 EDG to verify the operability of the redundant Unit 1, 'A' train safeguards train. The inspectors observed portions of vibration data acquisition and reviewed running engine log readings.

Finally, the inspectors reviewed CR 01-1898, "Wrong Level Indicator Reading Used in TS-83 - Fuel Oil Day Tank Reading," which was initiated as a result of this inspection activity and was reviewed as part of the inspection scope. The documents listed at the end of the report were used by the inspectors during the assessment of this area.

b. Findings

No findings of significance were identified.

.2 Unit 1 Red Channel Reactor Protection and Engineer Safety Features Quarterly Surveillance Test

a. Inspection Scope

The inspectors reviewed reactor protection system (RPS) design basis requirements and observed performance of instrumentation and control surveillance test 1ICP 2.001, "Reactor Protection and Engineered Safety Features Red Channel Analog Quarterly Surveillance Test," Revision 0, to verify operability of the RPS system. Since this was the first performance of the surveillance test following a complete procedure re-write, the inspectors compared surveillance test acceptance criteria against the licensing requirements found in the TSs Sections 15.2.3, "Limiting Safety System Settings, Protective Instrumentation," and 15.3.5, "Instrumentation System." The inspectors observed instrumentation and control technician calibration techniques, communication interfaces with the duty control room crew, and concurrent and independent verification practices when removing and restoring RPS instruments and bistables from service. Electrical connections for selected RPS functions were inspected for loose parts, dirt, and signs of damage to ensure continuity of electrical signals. Test instruments used during the surveillance test were inspected to ensure calibrations were current. When as-found trip setpoints were found to have drifted outside of administrative tolerance limits, the inspectors observed bistable calibrations to ensure RPS setpoints were returned to the design tolerances. The inspectors also reviewed the completed surveillance test procedure to ensure that supervisory reviews had been properly completed.

Finally, the inspectors reviewed CR 01-2110, “Incorrect TS References in Procedures,” which was initiated as a result of this inspection activity and was reviewed as part of the inspection scope. The documents listed at the end of the report were used by the inspectors during the assessment of this area.

b. Findings

No findings of significance were identified.

.3 Unit 1 ‘A’ Train 4160/480 Degraded and Loss of Voltage Monthly Surveillance Test

a. Inspection Scope

The inspectors reviewed undervoltage protection design basis requirements and observed performance of Surveillance Test 1RMP 9071-1, “A-05 4160/480 Degraded and Loss of Voltage Monthly Surveillance,” Revision 14, to verify functionality of the undervoltage relays. Prior to the surveillance test, the inspectors reviewed plant conditions to verify that surveillance procedure initial conditions were satisfied. The inspectors observed the performance of the test to verify that the test was performed as written and all testing prerequisites were satisfied and that the test data were appropriately reviewed and met the requirements of the testing procedure

The documents listed at the end of the report were used by the inspectors during the assessment of this area.

b. Findings

No findings of significance were identified.

.4 G-03 EDG Failure During Monthly Surveillance Test

a. Inspection Scope

The inspectors reviewed licensee compliance with TS requirement 15.3.7.B.1.g following a trip of the G-03 EDG that occurred during monthly surveillance testing on June 24, 2001. The inspectors monitored the licensee's troubleshooting activities and review of the trip to determine if a common cause failure mechanism existed for the other EDGs on site.

The documents listed at the end of the report were used by the inspectors during the assessment of this area.

b. Findings

During surveillance testing in accordance with TS Test 83 on June 24, 2001, the G-03 EDG tripped from full load at 11:17 a.m. While reviewing the cause of the G-03 trip on June 25, 2001, the inspectors noted that TS 15.3.7.B.1.g required the redundant engineered safety features to be operable and the required redundant standby emergency power supplies (G-01 and G-02) to be started within 24 hours before or after entry into the same Limiting Condition for Operation (LCO) and every 72 hours thereafter. Technical specifications provided further clarification stating that if the standby emergency power LCO (TS 15.3.7.B.1.g) was initially entered due to a standby emergency power failure (G-03) and the LCO was exited within 24 hours (TS LCO 15.3.7.B.1.g was exited at 12:05 when G-04 was re-aligned to supply emergency power to safeguards bus 1A06), then an evaluation must be completed as soon as possible within 24 hours of the entry into the LCO to show that the redundant power supplies (G-01 and G-02) were not susceptible to that failure by common cause or the redundant standby emergency power supplies must be started to prove that failure by common cause does not exist within 24 hours of entry into the LCO. Emergency diesel generators G-02 and G-01 were not started to demonstrate that failure by common cause did not exist until 13:08 and 16:51 on June 25, 2001, respectively.

Contrary to the requirements of TS 15.3.7.B.1.g, the licensee failed to show that the redundant power supplies to safeguards bus 1A05 (G-01 and G-02) were not susceptible to common cause failure within 24 hours by either completing a common cause evaluation or starting the redundant standby power supplies. Specifically, without a common cause evaluation being completed, the G-01 and G-02 were not started until 29 and 26 hours after the G-03 trip during surveillance testing on June 24, 2001.

This finding was considered to be more than minor and have a credible impact on safety since susceptibility of the Unit 1 'A' safeguards emergency AC bus (1A05) standby emergency power sources (G-01 and G-02) to common mode failure was not demonstrated within the TS prescribed time frame. Additionally, the issue affected the operability and reliability of a train in a mitigating system, emergency AC power. Since G-01 and G-02 surveillance tests were subsequently performed satisfactorily and G-04 had been aligned to supply the 1A06 safeguards bus, no actual loss of safety function for greater than the TS allowed outage time existed and the issue was assessed as having very low risk significance (Green). Since this issue was determined to have very low safety significance and was characterized as Green by the Significance Determination Process, this violation is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 50-266/01-10-02). This violation has been included in the licensee's corrective action program as CR 01-2152.

The inspectors noted that, as documented in LER 301/2000-003-00, on November 1, 2000, the licensee also failed to comply with TS requirements for starting redundant standby emergency power supplies per TS 15.3.7.B.1.g. Because this event occurred late in the inspection period, the inspectors considered the repeat nature of failing to comply with TS 15.3.7.B.1.g to be a URI (URI 50-266/01-10-03) pending additional inspection regarding common cause failures and corrective action adequacy.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walk-downs and Radiological Boundary Verifications

a. Inspection Scope

The inspector conducted walk-downs of the radiologically controlled area to verify the adequacy of radiological boundaries and postings. Specifically, the inspector walked down several radiologically significant work area boundaries (high and locked high radiation areas) in the Units 1 and 2 Primary Auxiliary Building to verify that these areas were posted and controlled in accordance with 10 CFR Part 20 and the licensee's procedures.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

PS2 Radioactive Material Processing and Transportation (71122.02)

.1 Walk-down of Radioactive Waste Systems

a. Inspection Scope

The inspector reviewed the liquid and solid radioactive waste system description in the FSAR and the most recent Radiological Effluent Release Report (2001) for information on the types and amounts of radioactive waste (radwaste) generated and disposed. The inspector performed walk-downs of the liquid and solid radwaste processing systems located in the Primary Auxiliary Building to verify that the systems agreed with the descriptions in the FSAR and the Process Control Program, and to assess the material condition and operability of the systems. The inspector reviewed the current processes for transferring waste resin and blowdown evaporator bottoms into shipping containers to determine if appropriate waste stream mixing and/or sampling procedures were utilized. The inspector also reviewed the methodologies for waste concentration averaging to determine if representative samples of the waste product were provided for the purposes of waste classification in 10 CFR 61.55. During this inspection, the licensee was not conducting waste processing.

b. Findings

No findings of significance were identified.

.2 Waste Characterization and Classification

a. Inspection Scope

The inspector reviewed the licensee's radiochemical sample analysis results for each of the licensee's waste streams, including dry active waste, resins, blowdown evaporator bottoms, and filters. The inspector also reviewed the licensee's use of scaling factors to quantify difficult-to-measure radionuclides (e.g., pure alpha or beta emitting radionuclides). The reviews were conducted to verify that the licensee's program assured compliance with 10 CFR Part 61.55 and 10 CFR 61.56, as required by Appendix G of 10 CFR Part 20. The inspector also reviewed the licensee's waste characterization and classification program to ensure that the waste stream composition data accounted for changing operational parameters and thus remained valid between the annual sample analysis updates.

b. Findings

No findings of significance were identified.

.3 Shipment Preparation

Inspection Scope

Since there were no radioactive materials shipment during the inspection, the inspector reviewed the records of training provided to personnel responsible for the conduct of radioactive waste processing and radioactive shipment preparation activities. The review was conducted to verify that the licensee's training program provided training consistent with NRC and Department of Transportation requirements.

Findings

No findings of significance were identified.

.4 Shipping Records

Inspection Scope

The inspector reviewed five non-excepted package shipment manifests completed in years 2000 and 2001, to verify compliance with NRC and Department of Transportation requirements (i.e., 10 CFR Parts 20 and 71 and 49 CFR Parts 172 and 173).

Findings

No findings of significance were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed Organizational Assessment Program (quality assurance) assessments and Radiation Protection Department self-assessments of the Radioactive Waste Management and Radioactive Material Shipping Programs to evaluate the effectiveness of the self-assessment process to identify, characterize, and prioritize problems. The inspector also reviewed corrective action documentation to verify that previous radioactive waste and radioactive materials shipping related issues were adequately addressed. The inspector also selectively reviewed year 2000 and 2001 CRs that addressed access control, and radioactive waste and radioactive materials shipping program deficiencies, to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA3 Event Follow-up (71153)

.1 Potential Non-Conservatism in MSLB Accident Identified During Reactor Power Update Analyses

a. Inspection Scope

The inspectors reviewed the event notification made in accordance with 10 CFR 50.72 on June 7, 2001, regarding the failure of a main feedwater regulating valve to isolate during a MSLB accident. The inspectors reviewed design and licensing bases and analyses of record to determine the effects of the postulated accident scenario at current licensed power conditions. The inspectors focused on potentially degraded conditions regarding primary containment peak pressures and leakage assumptions.

b. Findings

No findings of significance were identified.

.2 Unit 2 Manual Reactor Trip Due to Blockage of the Circulating Water Intake Traveling Screens by Fish

a. Inspection Scope

Control room operators manually tripped the Unit 2 reactor from 68 percent power on June 27, 2001, following a large influx of small fish (alewife) at the circulating water intake that resulted in blockage of the intake traveling screens. The inspectors responded to the site and reviewed plant status and configuration to ensure that Unit 2 had been placed in a stable condition and that adequate reactor decay heat removal capabilities existed. The inspectors compared operator actions and response to the transient against abnormal operating procedures (AOPs) 13A and 17A to ensure procedural adherence. Anomalies associated with one source range nuclear instrument, N-32, failing to energize and an interlock circuit bistable, P-10, failing to de-energize following the reactor trip, were reviewed to verify proper troubleshooting and repair prior to reactor restart. Anticipated transients without scram mitigating system actuation circuit circuitry was reviewed to determine if the automatic AFW initiation which occurred following the manual reactor trip was in accordance with system design.

The inspectors reviewed the effects of the fish infestation on the safety-related SW supply system and frequently monitored the status and performance of the one remaining SW strainer during and following the event. The inspectors reviewed and observed damage to the Unit's 1 and 2 traveling screens and monitored subsequent repair activities to verify the timeliness of licensee actions and the preparedness for other potential fish infestations. Since parts of one traveling screen broke during the fish infestation, the inspectors reviewed licensee transport analysis evaluations to ensure that no foreign material exclusion challenges to three of the six safety-related SW pump suctions existed (3 pumps are required for SW operability). The inspectors reviewed the licensee's strategy to remove the fish from the forebay and observed portions of the removal activities to verify that challenges to the safety-related SW system had been eliminated. Finally, the inspectors reviewed the effects of the fish infestation on main condenser and electrical generator cooling performance to ensure that challenges to secondary plant equipment representing potential transient initiators had been properly addressed by the licensee.

b. Findings

No findings of significance were identified.

.3 Unit 1 Rapid Power Reduction Due to Large Influx of Fish Following the Unit 2 Reactor Trip

a. Inspection Scope

After responding to the Unit 2 manual reactor trip on June 27, 2001, the inspectors observed crew response to a second fish infestation that challenged Unit 1 operations approximately 2 hours following the Unit 2 reactor trip. While in the control room, the inspectors observed crew dynamics associated with reports of lowering of Unit 1 pump bay level, rapid power reduction activities, and 'B' reactor coolant pump number two seal leakoff anomalies. The inspectors reviewed crew actions against AOPs 13A and 17A to ensure procedural adherence and to verify that reactor trip criteria were not met. The inspectors observed shift manager performance during the event to ensure that supervisory overview roles and responsibilities were properly maintained. Finally, the inspectors observed the Unit 1 power reduction to 80 percent and the subsequent return to 94 percent the following day.

b. Findings

No findings of significance were identified.

.4 (Closed) Licensee Event Report (LER) 301/2000-007-00: Fault Associated With ‘C’ Phase Main Step-Up Transformer Results in Reactor Scram. On December 20, 2000, Unit 2 was in the process of increasing power following completion of the unit's refueling outage. With reactor power at approximately 63 percent, the unit experienced a turbine generator trip which resulted in a reactor trip. Licensee investigation determined that the turbine generator trip was caused by the opening of the current transformer circuit for the 'C' phase input to the 2-51N neutral overcurrent relay. The licensee determined that the open circuit condition occurred due to the failure of a manufacturer's crimp connection.

The inspectors responded to the reactor scram as documented in Section 1R14.5 of NRC Inspection Report 50-266/00-17(DRP); 50-301/00-17(DRP). Based on the inspectors’ observations and a review of this LER, the inspectors determined that the scram was uncomplicated, all systems responded as expected, no human performance errors complicated the event response, and no emergency core cooling systems were challenged. The inspectors review of this LER did not identify any new issues.

.5 (Closed) LER 266/2001-002-00: Use of the steam generator blowdown isolation interlock defeat switch could result in loss of safety function. This event report discussed the results of an engineering evaluation which determined that under specific conditions the use of the steam generator blowdown isolation interlock defeat switch could result in the inability of the AFW system to provide adequate steam generator inventory control to assure removal of decay heat following a dual unit loss of AC power event. Specifically, the evaluation included two scenarios where defeating the steam generator blowdown isolation interlock would prevent the AFW system from providing the heat removal equivalent feedwater flow, 200 gpm, to each unit necessary for post-accident decay heat removal. In the first scenario, the unit 1 turbine-driven AFW pump was considered inoperable with the blowdown isolation interlock defeated for Unit 1 only. In the second scenario, the 'A' motor-driven AFW pump was considered inoperable with the blowdown isolation interlock defeated for both Units 1 and 2. In both scenarios with maximum blowdown rates considered, failure to isolate steam generator blowdown resulted in less than 200 gpm being available to each unit for decay heat removal.

In October 1982, the licensee performed safety evaluations for modification requests M-730 and M-731. These modifications installed key switches on control panels 1C03 and 2C03 in the control room adjacent to the blowdown control valve switches. The installed key switches allowed bypassing the AFW pump start/blowdown isolation interlock to prevent automatic closure of the blowdown valves when starting either motor-driven AFW pump or opening the steam supply to either turbine-driven AFW pump. The key switches were installed to preclude isolation of steam generator blowdown during routine AFW pump surveillance testing.

This issue was determined to have a credible impact on safety since the AFW pump configurations that could lead to less than a 200 gpm supply to the steam generators existed for approximately 200 hours per year for each Unit. Since AFW supply to the steam generators was never required when the limiting AFW pump configurations existed, no actual loss of safety function of a mitigating system occurred. The issue was determined to have very low safety significance and was characterized as Green by the Significance Determination Process. This issue has been included in the licensee's corrective action program as CR 01-0108. This issue is dispositioned in Section 4A07 of this report.

4OA5 Other

.1 (Closed) URI 50-266-00-09-01(DRP); 50-301-00-09-01(DRP): Licensing basis requirements for monitoring strainer plugging not clear. This URI was opened in August 2000 to track further NRC review of the facility's licensing basis requirements for monitoring SW strainer plugging and to evaluate the licensee's final corrective actions. NRC staff review of the issue found that the licensee's characterization of the current licensing basis of the main SW Zurn strainers was correct. In addition, the staff concluded that the logic applied by the licensee relative to past experience and the rate of strainer fouling during normal, accelerated fouling, and off-normal conditions was reasonable and acceptable for assuring adequate flow capability through the SW strainers. The staff disagreed, however, with the licensee's view that procedural controls were not necessary for prescribing operator actions that were relied upon to prevent excessive fouling of the SW strainers during normal plant operation. The staff reiterated that assumed operator actions cannot be relied upon unless they are properly controlled and directed in accordance with approved written instructions.

Using the staff's position, the inspectors reviewed main SW strainer differential pressure procedures to determine if sufficient operator guidance was in place. The inspectors found that the Unit 2 turbine building auxiliary operator log directed SW strainer differential pressure readings to be taken once per 8 hours using differential pressure instrumentation installed as a temporary modification in September 1999. If the differential pressure exceeded the established limit in the log, the operator was directed to insert a pitot tube into the applicable SW header and measure the flow through the affected strainer using instructions and flow curves found in Operating Instruction OI 70, "Service Water System Operation," Figure 1. If the combination of the strainer pressure drop and flow were found to indicate clogging above the 60 percent assumed in the current licensing basis, the operator was directed to place the affected strainer in backwash until the differential pressure returned to the operable region of Operating Instruction OI 70, Figure 1. These procedural controls were considered adequate for preventing excessive fouling of the SW strainers during normal plant operation. Finally, the licensee stated that the temporary modification installed to improve the accuracy of strainer differential pressure readings would become permanent plant equipment, ensuring accurate differential pressure measurements into the future.

Since the staff agreed that the licensee was meeting the current licensing basis, a previous inspection report had issued a Non-Cited Violation (NCV 50-266/99016-02(DRP); NCV 50-301/99016-02(DRP)) for failure to translate SW strainer design basis information into applicable procedures and instructions, and adequate procedures were in place for monitoring SW strainer differential pressure, the inspectors determined that no violation of regulatory requirements occurred.

4OA6 Meetings

Exit Meeting

The resident inspectors presented the routine inspection results to Mr. A. Cayia and other members of licensee management at the conclusion of the inspection on July 2, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meeting

Senior Official at Exit Meeting:	A. Cayia
Date:	June 14, 2001
Proprietary:	No
Subject:	Access Control to Radiologically Significant Areas and Radioactive Material Processing and Transportation
Change to Inspection Program:	No

4OA7 Licensee-Identified Violations

The following finding of very low significance was identified by the licensee and was a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a Non-Cited Violation.

If you deny this Non-Cited Violation, you should provide a response with the basis for denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 2055-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 2055-0001, and the NRC Resident Inspector at the Point Beach facility.

<u>NRC Tracking Number</u>		<u>Requirement Licensee Failed to Meet</u>
NCV	50-266/01-10-04 50-301/01-10-04	Code of Federal Regulations 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” requires, in part, that measures be established to assure that the design basis specified in the licensee application be correctly translated into procedures and instructions. Contrary to this requirements, the licensee modified steam generator blowdown isolation circuitry to allow defeating the blowdown isolation function during surveillance testing without considering the design basis requirements of the auxiliary feedwater system to provide the heat removal equivalent feedwater flow, 200 gpm, to each unit necessary for post-accident decay heat removal. This issue has been included in the licensee’s corrective action program as CR 01-0108.

KEY POINTS OF CONTACT

Licensee

A. Cayia, Plant Manager
F.A. Flentje, Senior Regulatory Compliance Specialist
D. Gehrke, Nuclear Oversight Supervisor
N.L. Hoefert, Engineering Programs Manager
V. M. Kaminskas, Maintenance Manager
R.G. Mende, Director of Engineering
B. J. O'Grady, Operations Manager
M. E. Reddemann, Site Vice President
D. D. Schoon, System Engineering Manager
D. Shannon, Radiation Protection Supervisor
S. J. Thomas, Radiation Protection Manager
R. Turner, Inservice Inspection Coordinator
T. Webb, Licensing Manager

NRC

B. A. Wetzel, Point Beach Project Manager, NRR

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-266/01-10-01 50-301/01-10-01	NCV	AFW system incorrectly returned to maintenance rule (a)(2) status without meeting the requirements set forth in the licensee's (a)(1) action plan (Section 1R12)
50-266/01-10-02	NCV	Failure to test the Unit 1 'B' safeguards train redundant standby emergency power supplies within the TS time requirement (Section 1R22.4)
50-266/01-10-03	URI	Corrective actions for failure to follow TS action statement (Section 1R22.4)
50-266/01-10-04 50-301/01-10-04	NCV	Use of the steam generator blowdown isolation interlock defeat switch could result in loss of safety function (Section 4A07)

Closed

50-266/01-10-01 50-301/01-10-01	NCV	AFW system incorrectly returned to maintenance rule (a)(2) status without meeting the requirements set forth in the licensee's (a)(1) action plan (Section 1R12)
50-266/01-08-02 50-301/01-08-02	URI	AFW system unavailability time not counted (Section 1R12)
50-301/01-08-03	URI	Unit 2 risk profile underestimated (Section 1R13.2)
50-266/01-10-02	NCV	Failure to test the Unit 1 'B' safeguards train redundant standby emergency power supplies within the TS time requirement (Section 1R22.4)
50-301/2000-007-00	LER	Fault associated with 'C' phase main step-up transformer results in reactor scram (Section 4OA3.4)
50-266/2001-001-00	LER	Use of the steam generator blowdown isolation interlock defeat switch could result in loss of safety function (Section 4OA3.5)
50-266/00-09-01	URI	Licensing basis requirements for monitoring strainer plugging not clear (Section 4OA5.1)
50-266/01-10-04 50-301/01-10-04	NCV	Use of the steam generator blowdown isolation interlock defeat switch could result in loss of safety function (Section 4A07)

<u>Discussed</u>

301/2000-003-00	LER	Failure to comply with limiting condition for operation action statement to start redundant standby emergency power supply (Section 1R22.4)
50-266/99016-02 50-301/99016-02	NCV	Differential pressure limitations for system strainers not appropriately incorporated into procedures (Section 4OA5.1)

LIST OF ACRONYMS USED

AC	Alternating Current
AFW	Auxiliary Feedwater
AOP	Abnormal Operating Procedure
CCW	Component Cooling Water
CFC	Containment Fan Cooler
CFR	Code of Federal Regulations
CL	Checklist
CR	Condition Report
CVCS	Chemical and Volume Control System
DBD	Design Basis Document
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
FSAR	Final Safety Analysis Report
GPM	Gallons Per Minute
IT	Inservice Test
LCO	Limiting Condition For Operation
LER	Licensee Event Report
MSLB	Main Steam Line Break
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OI	Operating Instruction
OWA	Operator Workaround
PBNP	Point Beach Nuclear Procedure
PORV	Power-Operated Relief Valve
PSIG	Pounds Per Square Inch Gauge
RCP	Reactor Coolant Pump
RDW	Radioactive Dry Waste
RP	Radiation Protection
RPS	Reactor Protection System
RWP	Radiation Work Permit
SSC	Structure, System, or Component
SW	Service Water
TS	Technical Specification
URI	Unresolved Item
WR	Work Request

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

CL 10B	Service Water Safeguards Lineup	Revision 49
CL 13E Part 1	Auxiliary Feedwater Valve Lineup Turbine-Driven Unit 1	Revision 28
CL 13E Part 2	Auxiliary Feedwater Valve Lineup Motor Driven	Revision 33
1-CL-CC-001	Component Cooling Unit 1	Revision 6
DBD [Design Basis Document] -01	Auxiliary Feedwater System	Revision 1
DBD-02	Component Cooling Water	Revision 0
DBD-12	Service Water	Revision 1

1R05 Fire Protection

Fire Protection Evaluation Report, Volume 3	Fire Zone: 237 - Component Cooling Water HX [Heat Exchanger] Room	August 1999
Fire Protection Evaluation Report, Volume 3	Fire Zone: 224 - Alternate Shutdown Panel	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 152 - 1P2C Charging Pump Room	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 153 - 1P2B Charging Pump Room	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 154 - 1P2A Charging Pump Room	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 159 - HVAC Equipment Room	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 163 - 2P2C Charging Pump Room	August 1999

Fire Protection Evaluation Report, Volume 2	Fire Zone: 164 - 2P2B Charging Pump Room	August 1999
Fire Protection Evaluation Report, Volume 2	Fire Zone: 165 - 2P2A Charging Pump Room	August 1999
Fire Protection Evaluation Report, Volume 3	Fire Zone: 308 - 3D-G01-A Train Diesel Generator Room	August 1999
Fire Protection Evaluation Report, Volume 3	Fire Zone: 309 - 4D-G02-B Train Diesel Generator Room	August 1999

1R06 Flood Protection Measures

Point Beach Nuclear Plant (PBNP) Individual Plant Examination Summary Report, Section 3.3	Accident Sequence Quantification	June 30, 1993
Nuclear Power Business Unit Procedures Manual (NP) 8.4.17	PBNP Flooding Barrier Control	Revision 0
DBD T-41	Hazards - Internal and External Flooding [Module A]	Revision 0
PBNP Periodic Checklist PC-80 Part 7	Lake Water Level Determination	Revision 0
PBNP Units 1 & 2 Probabilistic Safety Assessment Notebook Section 6	Internal Flooding Analysis	Revision 0
PBNP Units 1 & 2 Probabilistic Safety Assessment Notebook Section 7	External Flooding Analysis	Revision 0
FSAR Section 2.5	Hydrology	June 1998

FSAR Section 9.9	Spent Fuel Cooling (SF)	June 2000
Bechtel Drawing M-165	Turbine Building Floor and Equipment Drainage Area No. 3 at Elevation 8' 0"	Revision 5
Sargent and Lundy Drawing 3688 M-2	Water Intake Facility General Equipment Arrangement Plan "A-A" Point Beach N.P. Unit 1&2	Revision E
AOP-9A	Service Water System Malfunction	Revision 12
CR 01-2076	Auxiliary Feedwater Pump Room Floor Drains	June 13, 2001

1R12 Maintenance Rule Implementation

Calculation 98-0169	Probabilistic Risk Assessment of Maintenance Rule Availability Performance Criteria and Reliability Performance Criteria	Revision 1
	2000 Annual Report for the Maintenance Rule	March 26, 2001
	1999 Annual Report for the Maintenance Rule	March 30, 1999
	Maintenance Rule (a)(1) Action Plan for the Chemical and Volume System	December 12, 2000
	Review of Maintenance Rule Performance (Change of Disposition), CVCS System	March 14, 2000
Periodic Check PC 23 Part 5	Charging Pump Preventive Maintenance	Revision 5
DBD-02	Component Cooling Water	Revision 0
CR 01-1684	Maintenance Rule Unavailability Time Reporting	May 9, 2001
IT 14	Quarterly Inservice Test of Fuel Oil Transfer System Pumps and Valves	Revision 17
WR [Work Request] 9929925	Drain, Flush, and Refill G-01 Coolant	August 17, 2000
WR 9934359	Drain, Flush, and Refill G-02 Coolant	March 12, 2001
WR 9929926	Replace lube Oil/Piston Cooling Pump	August 14, 2000
WR 9804001	Change Coolant In Diesel	April 11, 1998

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 1	May 6, 2001
	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 2	May 6, 2001
	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 1	May 27, 2001
	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 2	May 27, 2001
	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 1	June 17, 2001
	Weekly Core Damage Risk Profile (Safety Monitor) - Unit 2	June 17, 2001
	Work Week Activities Sorted by Component for Week Ending 5/12/01, Units 1 and 2, Work Week O07	
	Work Week Activities Sorted by Component for Week Ending 6/2/01, Units 1 and 2, Work Week O10	
	Work Week Activities Sorted by Component for Week Ending 6/23/01, Units 1 and 2, Work Week P01	
CR 01-1760	Test Activity Missed in Risk Profile	May 14, 2001
System Operating Procedure 1-SOP-480-B03	Unit 1 Vital Train A 480V Buses	Revision 0
AOP-18A Unit 1	Train “A” Equipment Operation	Revision 5

1R15 Operability Evaluations

CR 01-1832	Reactor Cooling Pump (RCP) Vibration Alarm	May 22, 2001
CR 01-1821	‘B’ Reactor Coolant Pump Seal Leakoff Concern	May 20, 2001

AOP 1B Unit 1	Reactor Coolant Pump Malfunction	Revision 14
Plant Process Computer System (PPCS) Data Plots	‘A' and ‘B' Unit 1 Reactor Coolant Pump Parameters Including Seal Water Inlet Temperatures, Labyrinth Seal Differential Pressures, Seal Leakoff Flows, Volume Control Tank Outlet Temperatures, and Charging Line Flows	May 20, 2001, 0930 to 1100
Drawing 684J741 Sheet 2	P&ID [Piping and Instrumentation Drawing] Chemical and Volume Control System, Point Beach nuclear Plant Unit 1	Revision E
Drawing 684J741 Sheet 3	P&ID Chemical and Volume Control System, Point Beach Nuclear Plant Unit 1	Revision E
CR 01-2026	Containment Design Pressure Issue	June 6, 2001
CR 00-1304	Failure to Consider Single Failure to Close FWRV [Feedwater Regulating Valve] To Faulted SG [Steam Generator] - Cont. [Containment] Pressure	April 24, 2000
CR 99-0153	Some Accident Re-analyses of Containment Integrity Using Thermal Upgrade Parameters Do Not Meet FSAR Limits	January 15, 1999
Operability Determination, Part 1	CR 01-2026, Containment Response for MSLB Exceeds Design Pressure of 60 psig [pounds per square inch gauge]	Revision 0
Westinghouse Calculation WCAP - 15153	Wisconsin Electric Power Company Point Beach Nuclear Plant, Units 1 and 2 Steamline Break and Containment Integrity Analysis	December 1998
Wisconsin Electric Calculation 89-042	Evaluation of PBNP Containment Pressure Response to a Steam Line Break, Based on the Results of Westinghouse Analysis for a Reference 2-Loop PWR [Pressurized Water Reactor]	Revision 3
FSAR Section 10.1, Steam and Power Conversion System	Table 10.1-4, Steam and Power Conversion System Single Failure Analysis	June 2000
FSAR Section 14.2.5	Rupture of a Steam Pipe	June 2000
FSAR Section 7.2	Reactor Protection System	June 2000
FSAR Section 7.4.1.1	AMSAC [Anticipated Transient Without Scram Mitigating System Actuation Circuitry]	June 2000

FSAR Section 7.7.6.5	Turbine Generator Trip with Reactor Trip	June 2000
FSAR Section 10.1	Steam and Power Conversion System	June 2000
FSAR Section 14.0	Safety Analysis	June 2000
FSAR Section 14.1.9	Loss of External Electrical Load	June 2000
Emergency Operating Procedure EOP-0	Reactor Trip or Safety Injection	Revision 35

1R16 <u>Operator Workarounds</u>

OWA 0-94C-001	Operation of Steam Dumps Is Erratic	
CR 01-0527	Excessive Post-Trip Cooldowns	February 21, 2001
Root Cause Evaluation 00-084	Incorrect Operation of Condenser Steam Dump Valves	November 2000
Wisconsin Electric Drawing 79170C	Pneumatic Cylinder Actuator Main Steam Condenser Steam Dumps, Point Beach N.P. [Nuclear Plant] Unit 1 & 2	Revision 06

1R17 <u>Permanent Plant Modifications</u>

MR 98-024*J	Final Design Description Modification Request MR 98-024*J	Revision 0
SE 2001-0014	Unit 1 Containment Fan Cooler and Fan Motor Cooler Replacement Safety Evaluation	March 14, 2001
FSAR, Section 14.3.4	Containment Integrity Evaluation	June 1999
FSAR, Section 6.3	Containment Air Recirculation Cooling System	June 2000
Wisconsin Electric Power Company, Dockets 50-266 and 50-301	Generic Letter 96-06, 120-day Response, Assurance of Equipment operability and Containment Integrity During Design Basis Accident Conditions, Point Beach Nuclear Plant, Units 1 and 2	January 28, 1997

Wisconsin Electric Power Company, Dockets 50-266 and 50-301	Reply to Request for Additional information to Generic Letter 96-06, Assurance of Equipment Operability and Containment Integrity During Design Basis Accident Conditions, Point Beach Nuclear Plant, Units 1 and 2, NRC TAC Nos M96852 and M96853	January 28, 1997
DBD-12	Service Water System	Revision 1
DBD-30	Containment Heating and Ventilation	Revision 2

1R19 Post-Maintenance Testing

IT 09A	Cold Start of Turbine-Driven Auxiliary Feed Pump and Valve Test Unit 2 (Quarterly)	Revision 2
WR 9924087	Sample Drain and Change Pump Bearing Oil In 2P-29	
WR 9924088	2P-29 Turbine Bearing Oil and Grease Overspeed Trip Valve	

1R20 Refueling and Outage Activities

RESP [Reactor Engineering Surveillance Procedure] 3.1	Primary System Tests	Revision 16
Temporary Change Review 2001-0484	Change of Heatup Readings for RESP 3.1	Dated May 8, 2001
CL 1E	Containment Closure Checklist - Unit 1	Revision 3

1R22 Surveillance Testing

FSAR Section 8.8	Diesel Generator (DG) System	June 2000
Technical Specification Test 83	Emergency Diesel Generator G-03 Monthly	Revision 8
CR 01-1898	Wrong Level Indicator Reading Used in TS-83 - Fuel Oil Day Tank Reading	May 27, 2001
PC 12 Part 6	Diesel Generator Vibration (Quarterly) G-03	Revision 3

PBNP Form PBF-2067C	PBNP G-03 Emergency Diesel Generator Logsheet dated May 27, 2001	Revision 11
Operating Instruction OI-35	Standby Emergency Power Alignment	Revision 7
1ICP 02.001RD	Reactor Protection and Engineered Safety Features Red Channel Analog Quarterly Surveillance Test	Revision 0
FSAR Section 7.2	Reactor Protection System	June 2000
CR 01-2110	Incorrect Technical Specification References in Procedures	June 19, 2001
CR 01-2152	Potential Technical Specification Compliance Issue Regarding Emergency AC [Alternating Current]	June 25, 2001

2OS1 Access Control to Radiologically Significant Areas

Radiation Protection (RP) Self-Assessment

	RP Self-Assessment: High Radiation Area Controls Assessment	February 16, 2001

Condition Reports

CR 01-0611	High Radiation Violation - Laundry Worker	April 8, 2001
CR 01-0990	High Rad Door Propped Open	March 28, 2001
CR 01-1197	Radiation Work Permit (RWP) Violation in Keyway	April 11, 2001
CR 01-1346	Valve Team Members Signed on Wrong RWP	April 19, 2001
CR 01-2064	A Review of RP CRs Demonstrate a Declining Performance Trend With Respect to RWP Violations	June 14, 2001
CR 01-2066	High Radiation Area Related CRs do not Contain Sufficient Information to Allow an Independent Performance Indicator Review	June 14, 2001

2PS2 Radioactive Material Processing and Transportation

Condition Reports

CR 01-2066	Sample of Blowdown Evaporator Bottoms was Never Sent to an Independent Laboratory	June 13, 2001

Organizational Assessment and Radiation Protection Self-Assessments

	Second Quarter 2000 Plant Support Audit	August 17, 2000
	Organizational Assessment Quarterly Report 3Q2000	November 17, 2000
	RP Self-Assessment: Radwaste and Radioactive Material Shipping Program	August 25, 2000

Shipping Documents

	LSAII Shipment of Dewatered Resin	August 25, 2000
	Type B Shipment of Dewatered Resin	June 21, 2000
	LSAII Shipment of Blowdown Evaporator Bottoms	March 21, 2001
	LSAII Shipment of Blowdown Evaporator Bottoms	April 28, 2001
	LSAII Shipment of Blowdown Evaporator Bottoms	June 7, 2001

Station Procedures

RDW [Radioactive Dry Waste Procedure] 15.0	Radioactive Material Shipping	June 11, 1996
RDW 15.1	Determining Shipment Type and Packaging Requirements	January 12, 2001
RDW 15.2.4	Packaging Type B Quantity Material for Shipment	October 30, 1997
RDW 15.16	Packaging and Shipping of LSA [Low Specific Activity] and SCO [Surface Contaminated Object] Material via and Exclusive Use Vehicle	June 20, 1996
RDW 16.1	Preparation, Transport, and Storage of Radwaste	October 18, 1994
RDW 17.0	Liquid Radwaste Processing	February 3, 1993
RDW 17.3	Processing Bead Resin by Dewatering	August 14, 1997
RDW 18.3	Determining Activity and Radionuclide Content of Radwaste and Radioactive Material Packages	September 11, 1997

Other Documents

	Bill of Lading Assignment and Radioactive Material Shipment Records	2000 and 2001
	Transportation Training Records	June 14, 2001

4A03 Event Followup

Event Number 38057, 8-Hr. Non-Emergency 10 CFR 50.72(b)(3) Report	Potential Non Conservatism in Main Steam Line Break Accident Identified During Reactor Power Update Analyses	June 7, 2001
FSAR Section 10.1, Steam and Power Conversion System	Table 10.1-4, Steam and Power Conversion System Single Failure Analysis	June 2000
FSAR Section 14.2.5	Rupture of a Steam Pipe	June 2000
Event Number 38100, 4-Hr. Non-Emergency Report 10 CFR 50.72(b)(2), 8-Hr. Non-Emergency 10 CFR 50.72(b)(3) Report	Unit 2 Manually Tripped due to Low Pump Bay Level	June 27, 2001
OI [Operating Instruction] 70	Service Water System Operation	Revision 31
10 CFR 50.59/72.48 Screening and Safety Evaluation SCR 2001-0540	Work Plan To Remove Fish From Forebay	June 28, 2001
Inservice Testing Background Document - Appendix O	PBNP Inservice Testing background Valve Data Sheet - Valve 0SW-02911, SW North Header Zurn Strainer Auto Backwash Valves	Revision 4
DBD, Section 3.2.6	Component Parameter Worksheet - North and South SW Header Strainers	Revision 1
FSAR Section 7.4.1,	AMSAC [ATWS (Anticipated Transient Without Scram) Mitigating System Actuation Circuitry]	dated June 2000
Calculation P-89-037	Determination of SW Minimum Submergence	April 10, 2001
Engineering Action Plan	SW System Action Plan - Alewife Intrusion Recovery	June 28, 2001

Engineering Assessment	Debris Transport Assessment	June 28, 2001
AOP 13A	Circulating Water System Malfunction	Revision 10
AOP 17A	Rapid Power Reduction	Revision 9
AOP 1B	Reactor Coolant Pump Malfunction	Revision 14
M-370	PBNP Modification Request - Steam Generator Blowdown	December 8, 1980
M-371	PBNP Modification Request - Steam Generator Blowdown	December 8, 1980

4A05 Other

CR 99-2241	Existing Instrumentation, Procedures Inadequate To Support SW Zurn Strainer Design Basis Analysis, Operability Determination	Revision 5
PBF [Point Beach Form] 2033	Turbine Building Shift Log Unit 2	Revision 42
PBF 2078	Turbine Building Cold Shutdown Log Unit 2	Revision 35
OI 70	Service Water System Operation	Revision 32
AOP [Abnormal Operating Procedure]	Service Water System Malfunction	Revision 13