



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
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LISLE, IL 60532-4352

January 30, 2012

Mr. Larry Meyer  
Site Vice President  
NextEra Energy Point Beach, LLC  
6610 Nuclear Road  
Two Rivers, WI 54241

**SUBJECT:** POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 -  
NRC INTEGRATED INSPECTION REPORT 05000266/2011005;  
05000301/2011005

Dear Mr. Meyer:

On December 31, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on January 3, 2012, with you and 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.

One NRC-identified finding of very low safety significance (Green) was identified during this inspection. This finding was determined to involve a violation of NRC requirements. Further, a licensee-identified violation which were determined to be of very low safety significance is listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Nuclear Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III; and the NRC Resident Inspector at the Point Beach Nuclear Plant.

L. Meyer

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

Sincerely,

**/RA/**

Michael A. Kunowski, Branch Chief  
Branch 5  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000266/2011005; 05000301/2011005  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000266; 05000301  
License Nos: DPR-24; DPR-27

Report No: 05000266/2011005; 05000301/2011005

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: Two Rivers, WI

Dates: October 1, 2011, through December 31, 2011

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Division of Reactor Projects

Enclosure

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## SUMMARY OF FINDINGS

IR 05000266/2011005, 05000301/2011005; 10/01/2011 – 12/31/2011; Point Beach Nuclear Plant, Units 1 and 2; Inservice Inspection Activities.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors. The finding was considered a non-cited violation (NCV) of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### A. NRC-Identified and Self-Revealed Findings

#### Cornerstone: Mitigating Systems

- Green. The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 50.55a(g)(4) for the licensee's failure earlier in 2011 to accept for continued service, by correction, or evaluation or test, a safety injection (SI) system support (SI-1501R-2-H1) whose examination detected a condition unacceptable (improper hot and/or cold setting) for continued service in accordance with American Society of Mechanical Engineers (ASME) Section XI Code. The licensee, having instead incorrectly dispositioned the condition with a system operability screening, subsequently completed an analysis to confirm that the support was operable with this configuration and entered this issue into its corrective action program.

This finding was of more than minor significance because the licensee routinely failed to perform evaluations on similar issues. The failure to confirm the ability of this support to carry design loads as required by ASME Section XI Code prior to returning it to service, increased the likelihood of a component failure and adversely affected the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was of very low safety significance based on answering "No" to the Phase I screening question identified in the Mitigating Systems column of Table 4a in Inspection Manual Chapter, Attachment 0609.04 "Phase I - Initial Screening and Characterization of Findings." The finding has a cross-cutting aspect in the area of human performance, resources, because the licensee's training was not adequate and failed to direct personnel to disposition an unacceptable condition in accordance with the requirements of the ASME Section XI Code [H.2(b)]. (Section 1R08)

### B. Licensee-Identified Violations

Violations of very low safety significance that were identified by the licensee have been reviewed by inspectors. Corrective actions planned or taken by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7 of this report.

## REPORT DETAILS

### Summary of Plant Status

Unit 1 was at 100 percent power at the beginning of the inspection period, shut down to commence a refueling outage (U1R34) on October 2, 2011, restarted on December 12, and ascended to the new extended power uprate (EPU) 100 percent power level on December 30.

Unit 2 was at 100 percent power throughout the entire inspection period with the exception of a small planned reduction in power during routine auxiliary feedwater (AFW) testing.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

#### 1R01 Adverse Weather Protection (71111.01)

##### .1 Winter Seasonal Readiness Preparations

##### a. Inspection Scope

The inspectors conducted a review of the licensee's preparations for winter conditions to verify that the plant's design features and implementation of procedures were sufficient to protect mitigating systems from the effects of adverse weather. Documentation for selected risk-significant systems was reviewed to ensure that these systems would remain functional when challenged by inclement weather. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Final Safety Analysis Report (FSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. Cold weather protection, such as heat tracing and area heaters, was verified to be in operation where applicable. The inspectors also reviewed corrective action program (CAP) items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into the CAP in accordance with station corrective action procedures. Documents reviewed are listed in the Attachment to this report. The inspectors' reviews focused specifically on the following plant systems due to their risk significance or susceptibility to cold weather issues:

- the AFW system;
- condensate and feedwater (FW) system;
- 4160-V (volt) system;
- main feed isolation valves; and
- circulating water system.

This inspection constituted one winter seasonal readiness preparations sample as defined in inspection procedure (IP) 71111.01-05.

##### b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Unit 2 component cooling water (CCW) system
- emergency diesel generator (EDG) G-02 while G-01 was out-of-service for maintenance; and
- Unit 1 residual heat removal (RHR) with the unit in Mode 5.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time it was inspected. The inspectors attempted to identify any discrepancies that could impact the function of the systems and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, FSAR, Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports (CRs), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted three partial system walkdown samples as defined in IP 71111.04-05.

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Walkdown (71111.04S)

a. Inspection Scope

On October 18, 2011, the inspectors performed a complete system alignment inspection of the spent fuel pool (SFP) cooling to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line-ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly

affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- fire zone 138 – Unit 2 motor-driven auxiliary feedwater (MDAFW) pump room;
- fire zone 139 – Unit 1 MDAFW pump room;
- fire zone 142 – CCW pump area;
- fire zone 225 – battery room D106;
- fire zone 238 – 46' elevation of auxiliary building general area; and
- fire zone 301 – Unit 1 8' turbine building.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded, or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted six quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.



## 1R08 Inservice Inspection Activities (71111.08P)

From October 3 to October 21, 2011, the inspectors conducted a review of the implementation of the licensee's Inservice Inspection (ISI) Program for monitoring degradation of the reactor coolant system (RCS), steam generator (SG) tubes, AFW systems, risk-significant piping and components, and containment systems.

The inspections described in Sections 1R08.1, 1R08.2, 1R08.3, 1R08.4, and 1R08.5 below constituted one inservice inspection sample as defined in IP 71111.08-05.

### .1 Piping Systems Inservice Inspection

#### a. Inspection Scope

The inspectors observed and reviewed records of the following non-destructive examinations mandated by the American Society of Mechanical Engineers (ASME) Section XI Code to evaluate compliance with the ASME Section XI and Section V Code requirements; and, if any indications and defects were detected, to determine if these were dispositioned in accordance with the ASME Code or an NRC-approved alternative requirement.

- ultrasonic testing/examination (UT) of a Class 2, risk-informed (R-A), 4" Pipe-to-Elbow Weld, SIS-04-SI-1005-04, safety injection (SI) line;
- a UT of a Class 2, risk-informed (R-A), 4" Elbow-to-Pipe Weld, SIS-04-SI-1005-07, SI line;
- a UT of a Class 2, risk-informed (R-A), 4" Pipe-to-Elbow Weld, SIS-04-SI-1005-08, SI line;
- visual test/examination (VT-3) of a Class 2 SI Rigid Support, SI-1501R-2-H12; and
- a VT-3 of a Class 2 Aux Cooling Alternating Current (AC) Component Support, AC-601R-6-R31.

The inspectors reviewed the following examinations completed during the previous outage with relevant/recordable conditions/indications accepted for continued service to determine if acceptance was in accordance with the ASME Code Section XI or an NRC-approved alternative.

- indication Automated Ultrasonic Test (AUT) Disposition of Reactor Coolant (RC) inlet Elbow-to-Nozzle Weld at 328.5o, RC-32-MRCL-AIII-03;
- indication AUT disposition of SI Nozzle-to-Shell Weld at 288.5o, RPV-687-01-A;
- indication AUT disposition of Reactor Pressure Vessel (RPV) Nozzle-to-Shell Weld, RPV-16-683; and
- indication disposition of SI Spring Hanger, SI-1501R-2-H1.

The inspectors reviewed the following pressure boundary welds completed for risk significant systems since the beginning of the last refuelling outage to determine if the licensee applied the pre-service non-destructive examinations and acceptance criteria required by the Construction Code and ASME Section XI Code. Additionally, the inspectors reviewed the welding procedure specification and supporting weld procedure qualification records to determine if the weld procedure was qualified in accordance with the requirements of Construction Code and the ASME Code Section IX.

- 1SI-00891B, P-15B SI Pump Discharge Recirc to SI Test Line (2"-SI-1501R-4) Check Valve, Weld Nos. 4 and 5, Code Class 2; and
- 3" EB-10/Piping; 3" x 3" Tee on AFW Supply Line to SGs 1HX-01A and 1HX-01B, Class 2.

b. Findings

Failure to Disposition a Pipe Support in Accordance with ASME Code

Introduction: A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR 50.55a(g)(4) was identified by the inspectors for the failure to correctly disposition and accept for continued service, by correction, or evaluation, or test, an SI system support (SI-1501R-2-H1). An examination of this component detected a condition unacceptable (improper hot and/or cold setting) for continued service in accordance with ASME Section XI Code.

Description: On October 12, 2011, during a review of an ASME Code-required VT-3 visual examination Indication Disposition Report (IDR) of SI spring can support SI-1501R-2-H1, the inspectors identified that the licensee had failed earlier in 2011 to properly disposition the can for continued use after the VT-3 detected a relevant condition. Specifically, the spring can support was at an improper setting. The ASME Code Section XI states that "component support conditions which are unacceptable for continued service shall include improper hot or cold settings of spring supports and constant load supports."

The licensee failed to correct this condition by either: correction (plus the requisite additional and successive examination), or by evaluation or testing, as required by ASME Code, prior to accepting the support for continued service. Instead of evaluating the component containing the relevant condition as required by Code, the licensee's civil/structural group reviewed the upstream spring can and the downstream support and concluded that they had adequate margin to carry any load not carried by the subject spring can. By doing so, the engineering group considered only system operability when arriving at its conclusions and did not consider the interface with the 10 CFR 50.55a ISI program requirements.

The inspectors' questions on how this Code-rejectable condition was accepted prompted the licensee to enter this issue into the CAP (as Action Request AR01695862), and to complete an evaluation (incorporated into AR01695862) to confirm that the support was operable in this configuration.

The inspectors reviewed an additional sample of corrective action documents and subsequently identified two more supports which were improperly dispositioned, which were also entered into the CAP.

Analysis: The inspectors determined that the failure to properly disposition the nonconformance for support SI-1501R-2-H1 in accordance with ASME Section XI Code was a performance deficiency that warranted a significance evaluation. A review of additional corrective action documents identified two similar examples. The finding was more than minor because it met the criteria in Inspection Manual (IMC) 0612, Appendix E, "Examples of Minor Issues," Example 4a, dated August 11, 2009. Specifically, "the licensee routinely failed to perform engineering evaluations on similar issues," and if left uncorrected, the failure to properly evaluate an unacceptable condition

prior to returning the unit to service could become a more significant safety concern. The finding was associated with the Mitigating Systems (MS) cornerstone attribute of "Equipment Performance" and adversely affected the cornerstone objective to "ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences." The failure to correct this condition, or to perform an engineering evaluation to confirm that this degraded support would carry design loads, increased the likelihood of a component failure that would affect SI system operability.

This finding was of very low safety significance (Green) based on answering "No" to the Phase I screening question identified in the Containment Barrier column of Table 4a in Attachment 0609.04, "Phase I - Initial Screening and Characterization of Findings," dated January 10, 2008. Specifically, the licensee performed a subsequent evaluation, which determined the support to be operable.

A discussion with licensee personnel identified the primary cause of this failure was related to the cross-cutting component of human performance, resources, because the civil/structural personnel in Design Engineering who performed the evaluations of the discrepant supports considered only system operability when arriving at their conclusions (H.2(b)). They did not understand the interface with the ASME Code requirements.

Enforcement: The inspectors identified an NCV of 10 CFR 50.55a(g)(4), "Inservice Inspection Requirements," having a very low safety significance (Green), related to the acceptance of a component support for continued service without being dispositioned in accordance with the ASME Code.

Title 10 CFR 50.55a(g)(4) requires, in part, that "throughout the service life of a pressurized water-cooled nuclear power facility, components must meet the requirements set forth in the ASME Code Section XI."

The ASME Code 1998 Edition, 2000 Addenda of Section XI, Article IWF-3410, "Acceptance Standards - Component Support Structural Integrity," states in part, that "component support conditions which are unacceptable for continued service shall include improper hot or cold settings of spring supports and constant load supports."

The ASME Code Section XI, Article IWB-3122, requires that component supports which do not meet the acceptance standards of IWF-3410 be corrected in accordance with the provisions of IWF-3122.2 (acceptance by correction) or IWF-3122.3 (acceptance by evaluation or test) to permit acceptance for continued service.

Contrary to the above, during 2011, the licensee failed to correct an unacceptable SI component support condition for spring support SI-1501R-2-H1, and at least two other component supports, by correction, evaluation, or test prior to accepting the component for continued service, in accordance with ASME Code requirements. Because of the very low safety significance of this finding, and because the licensee subsequently completed an evaluation to confirm that the support was operable with this configuration and entered this issue into the CAP, it is being treated as an NCV consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2011005-01; Failure to Disposition a Pipe Support in Accordance with ASME Code).

## .2 Reactor Pressure Vessel Upper Head (RPVUH) Penetration Inspection Activities

### a. Inspection Scope

No exams were required this outage. An information-only visual examination was performed on the accessible areas of the RPVUH using a camera mounted on a "crawler." Therefore, no NRC review was completed for this inspection procedure attribute.

### b. Findings

No findings were identified.

## .3 Boric Acid Corrosion Control (BACC)

### a. Inspection Scope

On October 3, 2011, the inspectors observed the licensee staff performing VT examinations of the RCS within containment to determine if these examinations focused on locations where boric acid (BA) leaks can cause degradation of safety significant components.

The inspectors reviewed the following licensee evaluations of RCS components with BA deposits to determine if degraded components were documented in the CAP. The inspectors also evaluated corrective actions for any degraded RCS components to determine if they met the component Construction Code, ASME Code Section XI, and/or NRC-approved alternative.

- Boric Acid Evaluation (BAE) 10-313; T-13 RWST Outlet to P-10A RHR Pump Suction Header, March 23, 2011;
- BAE 10-314; T-13 RWST Outlet to P-10B RHR Pump Suction Header, March 22, 2011; and
- BAE 10-318; 2SI-826A, P-15A/B SI Pump Suction from Bast Series Isol., May 31, 2011.

The inspectors reviewed the following corrective actions related to evidence of BA leakage to determine if the corrective actions completed were consistent with the requirements of the ASME Code Section XI and 10 CFR Part 50, Appendix B, Criterion XVI.

- AR01648622, "Pull Bolt and Perform VT-3 Due to Boric Acid Indication";
- AR01653673, "Body-to-Bonnet Boric Acid Leakage"; and
- AR01620068, "Boric Acid in Contact with B/B Bolting."

### b. Findings

No findings were identified.

#### .4 Steam Generator (SG) Tube Inspection Activities

##### a. Inspection Scope

The NRC inspectors observed acquisition of eddy current testing (ET) data, interviewed ET data personnel, and reviewed documentation related to the SG ISI program to determine if:

- in-situ SG tube pressure testing screening criteria used were consistent with those identified in the Electric Power Research Institute (EPRI) Document 1014983, "Steam Generator In-Situ Pressure Test Guidelines," and that these criteria were properly applied to screen degraded SG tubes for in-situ pressure testing;
- in-situ pressure test records demonstrated pressure and hold times consistent with EPRI Document 1014983;
- in-situ pressure test results were properly applied to SG tube integrity performance criteria identified in EPRI Document 1019038, "Steam Generator Integrity Assessment Guidelines";
- the numbers and sizes of SG tube flaws/degradation identified was consistent with the licensee's previous outage Operational Assessment predictions;
- the SG tube ET examination scope and expansion criteria were sufficient to meet the TSs, and the EPRI Document 1013706, "Pressurized Water Reactor Steam Generator Examination Guidelines";
- the SG tube ET examination scope included potential areas of tube degradation identified in prior outage SG tube inspections and/or as identified in NRC generic industry operating experience applicable to these SG tubes;
- the licensee identified new tube degradation mechanisms and implemented adequate extent of condition inspection scope and repairs for the new tube degradation mechanism;
- the licensee implemented repair methods which were consistent with the repair processes allowed in the plant TS requirements and to determine if qualified depth sizing methods were applied to degraded tubes accepted for continued service;
- the licensee implemented an inappropriate "plug on detection" tube repair threshold (e.g., no attempt at sizing of flaws to confirm tube integrity);
- the licensee primary-to-secondary leakage (e.g., SG tube leakage) was below 3 gallons-per-day or the detection threshold during the previous operating cycle;
- the ET probes and equipment configurations used to acquire data from the SG tubes were qualified to detect the known/expected types of SG tube degradation in accordance with Appendix H, "Performance Demonstration for Eddy Current Examination," of EPRI Document 1013706, "Pressurized Water Reactor Steam Generator Examination Guidelines";
- the licensee performed secondary-side SG inspections for location and removal of foreign materials;
- the licensee implemented repairs for SG tubes damaged by foreign material; and
- foreign objects were left within the secondary-side of the SGs, and if so, that the licensee implemented evaluations which included the effects of foreign object migration and/or tube fretting damage.

The licensee did not perform in-situ pressure testing of SG tubes. Therefore, no NRC review was completed for this inspection attribute.

b. Findings

No findings were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspectors performed a review of ISI-related problems entered into the licensee's CAP and conducted interviews with licensee staff to determine if:

- the licensee had established an appropriate threshold for identifying ISI-related problems;
- the licensee had performed a root cause (if applicable) and taken appropriate corrective actions; and
- the licensee had evaluated operating experience and industry generic issues related to ISI and pressure boundary integrity.

The inspectors performed these reviews to evaluate compliance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. Documents reviewed are listed in the Attachment to this report.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On November 29, 2011, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training (LORT) to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and that training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan (EP) actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program sample as defined in IP 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- function-oriented sample of RHR pumps;
- problem-oriented sample of turbine-driven auxiliary feedwater (TDAFW) pump; and
- function-oriented sample for EDG air check valve.

The inspectors reviewed events, such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems, and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted three quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related (SR) equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- risk management during high winds and electrical bus switching operations;
- shutdown risk management during mode changes and reactor inventory changes;
- maintenance risk with instrument air compressor (K-2A) temperature control valve out-of-service;
- risk management during core reload; and
- risk management during Notification of Unusual Event (NOUE).

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Documents reviewed are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted five samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:



- leakage from spent fuel transfer canal possibly affecting surrounding structure;
- operability of Unit 2 MDAFW pump with the SR flow controller powered by the same source as the nonsafety-related FW regulating valve controllers;
- operability of EDG G-04 with degraded air start system;
- operability of EDG G-04 fuel oil transfer pump with vibrations in the alert range; and
- operability of service water (SW) pump B with unknown leakage source.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and FSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted five samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modification:

- temporary reactor pressure vessel cover.

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the FSAR, and the TSs, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could

impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary modification sample as defined in IP 71111.18-05.

### Findings

No findings were identified.

## 1R19 Post-Maintenance Testing (71111.19)

### .1 Post-Maintenance Testing (PMT)

#### a. Inspection Scope

The inspectors reviewed the following PMT activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- PMT of SG A narrow range root valve after gasket replacement, Unit 1;
- PMT of containment sump alarm after removal of a temporary modification for power, Unit 2;
- PMT after repair of pressurizer relief tank makeup water inlet check valve 1RC-529, Unit 1;
- PMT after replacement of RHR heat exchanger A shell gasket, Unit 1;
- PMT of SW isolation valve SW-2890 following replacement, Units 1 and 2
- PMT of CCW pump 1P-11B following overhaul and inspection, Unit 1;
- PMT of welds on main FW system following weld failures, Unit 2;
- PMT of the SG header non-return check valve after bolt replacement, Unit 2;
- PMT of primary auxiliary building ventilation duct work after replacement, Unit 2; and
- PMT of reactor trip breaker 52/D350-RT04 after repair, Unit 1.

These activities were selected based upon the SSCs' ability to impact risk.

The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against the TSs, the FSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to verify that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with PMT activities to determine whether the licensee was identifying problems and entering them into the CAP, and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted 10 post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

The inspectors reviewed the Outage Safety Plan (OSP) and contingency plans for the Unit 1 refueling outage (RFO), conducted October 3 to December 17, 2011, to confirm that the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. Documents reviewed are listed in the Attachment to this report. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the OSP for key safety functions and compliance with the applicable TS when taking equipment out-of-service;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and OSP requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the SFP cooling system;
- reactor water inventory controls including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TSs;
- licensee fatigue management, as required by 10 CFR 26, Subpart I;
- refueling activities, including fuel handling and sipping to detect fuel assembly leakage;
- startup and ascension to full power operation, tracking of startup prerequisites, walkdown of the drywell (primary containment) to verify that debris had not been left which could block emergency core cooling system (ECCS) suction strainers, and reactor physics testing;
- observations of critical EPU activities, including initial operation of new equipment and power ascension above the prior licensed limit; and
- licensee identification and resolution of problems related to RFO activities.

This inspection constituted one refueling outage sample as defined in IP 71111.20-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- surveillance of Unit 2 Train A SI valves (routine);
- containment leak rate test (routine); and
- EDG G-02 monthly surveillance test (routine).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, demonstrated operational readiness, and consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with the TS, the FSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of ASME Code Section XI, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for SR instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;

- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples as defined in IP 71111.22, -02 and -05.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

.1 Emergency Action Level (EAL) and Emergency Plan (EP) Changes

a. Inspection Scope

Since the last NRC inspection of this program area, EP Appendix B, Revision 25; EP Implementing Procedure 1.2, Revisions 49 and 50; and EP Implementing Procedure 1.2.1, Revisions 6 and 7 were implemented based on the licensee's determination, in accordance with 10 CFR 50.54(q), that the changes resulted in no decrease in effectiveness of the EP and that the revised EP as changed continues to meet the requirements of 10 CFR 50.47(b) and 10 CFR Part 50, Appendix E. The inspectors conducted a sampling review of the EP changes and a review of the EAL changes made between December 2010 and October 2011 to evaluate for potential decreases in effectiveness of the EP. However, this review does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

This EAL and EP changes inspection constituted one sample as defined in IP 71114.04-05.

b. Findings

No findings were identified.

## 2. RADIATION SAFETY

### Cornerstones: Occupational Radiation Safety and Public Radiation Safety

#### 2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

This inspection constituted one complete sample as defined in IP 71124.03-05.

##### .1 Inspection Planning (02.01)

###### a. Inspection Scope

The inspectors reviewed the plant FSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. Instrumentation reviewed included continuous air monitors (continuous air monitors and particulate-iodine-noble-gas-type instruments) used to identify changing airborne radiological conditions such that actions to prevent an overexposure may be taken. The review included an overview of the respiratory protection program and a description of the types of devices used. The inspectors reviewed the FSAR, the TSs, and EP documents to identify location and quantity of respiratory protection devices stored for emergency use.

Inspectors reviewed the licensee's procedures for maintenance, inspection, and use of respiratory protection equipment, including self-contained breathing apparatus, as well as procedures for air quality maintenance.

The inspectors reviewed reported performance indicators to identify any related to unintended dose resulting from intakes of radioactive material.

###### b. Findings

No findings were identified.

##### .2 Engineering Controls (02.02)

###### a. Inspection Scope

The inspectors reviewed the licensee's use of permanent and temporary ventilation to determine whether the licensee used ventilation systems as part of its engineering controls (in lieu of respiratory protection devices) to control airborne radioactivity. The inspectors reviewed procedural guidance for use of installed plant systems, such as containment purge, spent fuel pool ventilation, and auxiliary building ventilation, and assessed whether the systems are used, to the extent practicable, during high-risk activities (e.g., using containment purge during cavity flood up).

The inspectors selected installed ventilation systems used to mitigate the potential for airborne radioactivity, and evaluated whether the ventilation airflow capacity, flow path (including the alignment of the suction and discharges), and filter/charcoal unit efficiencies, as appropriate, were consistent with maintaining concentrations of airborne radioactivity in work areas below the concentrations of an airborne area to the extent practicable.

The inspectors selected temporary ventilation system setups (high-efficiency particulate air/charcoal negative pressure units, down-draft tables, tents, metal “Kelly Buildings,” and other enclosures) used to support work in contaminated areas. The inspectors assessed whether the use of these systems was consistent with licensee procedural guidance and as-low-as-is-reasonably-achievable (ALARA) concepts.

The inspectors reviewed airborne monitoring protocols by selecting installed systems used to monitor and warn of changing airborne concentrations in the plant and evaluating whether the alarms and setpoints were sufficient to prompt licensee/worker action to ensure that doses were maintained within the limits of 10 CFR 20 and the ALARA concept.

The inspectors assessed whether the licensee had established trigger points (e.g., the EPRI’s “Alpha Monitoring Guidelines for Operating Nuclear Power Stations”) for evaluating levels of airborne beta-emitting (e.g., plutonium-241) and alpha-emitting radionuclides.

b. Findings

No findings were identified.

.3 Use of Respiratory Protection Devices (02.03)

a. Inspection Scope

For those situations where it is impractical to employ engineering controls to minimize airborne radioactivity, the inspectors assessed whether the licensee provided respiratory protective devices such that occupational doses were ALARA. The inspectors selected work activities where respiratory protection devices were evaluated to limit the intake of radioactive materials, and assessed whether the licensee performed an evaluation concluding that further engineering controls were not practical and that the use of respirators are ALARA. The inspectors also evaluated whether the licensee had established means (such as routine bioassay) to determine if the level of protection (protection factor) provided by the respiratory protection devices during use was at least as good as that assumed in the licensee’s work controls and dose assessment.

The inspectors assessed whether respiratory protection devices used to limit the intake of radioactive materials were certified by the National Institute for Occupational Safety and Health/Mine Safety and Health Administration or have been approved by the NRC per 10 CFR 20.1703(b). The inspectors selected work activities where respiratory protection devices were potentially used. The inspectors evaluated whether the devices were consistent with their National Institute for Occupational Safety and Health/Mine Safety and Health Administration certification or any conditions of their NRC approval.

The inspectors reviewed records of air testing for supplied-air devices and self-contained breathing apparatus bottles to assess whether the air used in these devices met or exceeded Grade D quality. The inspectors reviewed plant breathing air supply systems to determine whether they met the minimum pressure and airflow requirements for the devices in use.

The inspectors selected several individuals qualified to use respiratory protection devices, and assessed whether they have been deemed fit to use the devices by a physician.

The inspectors selected several individuals assigned to wear a respiratory protection device and observed them donning, doffing, and functionally checking the device as appropriate. Through interviews with these individuals, the inspectors evaluated whether they knew how to safely use the device and how to properly respond to any device malfunction or unusual occurrence (loss of power, loss of air, etc.).

The inspectors chose multiple respiratory protection devices staged and ready for use in the plant or stocked for issuance for use. The inspectors assessed the physical condition of the device components (mask or hood, harnesses, air lines, regulators, air bottles, etc.) and reviewed records of routine inspection for each. The inspectors selected several of the devices and reviewed records of maintenance on the vital components (e.g., pressure regulators, inhalation/exhalation valves, hose couplings).

b. Findings

No findings were identified.

.4 Self-Contained Breathing Apparatus for Emergency Use (02.04)

a. Inspection Scope

Based on the FSAR, TSs, and emergency operating procedure requirements, the inspectors reviewed the status and surveillance records of self-contained breathing apparatuses staged in-plant for use during emergencies. The inspectors reviewed the licensee's capability for refilling and transporting self-contained breathing apparatus air bottles to and from the control room and operations support center during emergency conditions.

The inspectors selected several individuals on control room shift crews and from designated departments currently assigned emergency duties (e.g., onsite search and rescue duties) to assess whether control room operators and other emergency response and radiation protection personnel (assigned in-plant search and rescue duties or as required by emergency operating procedures or the emergency plan) were trained and qualified in the use of self-contained breathing apparatuses (including personal bottle change out). The inspectors evaluated whether personnel assigned to refill bottles were trained and qualified for that task.

The inspectors determined whether appropriate mask sizes and types were available for use (i.e., in-field mask size and type matched what was used in fit-testing). The inspectors determined whether on-shift operators had no facial hair that would interfere with the sealing of the mask to the face and whether vision correction (e.g., glasses inserts or corrected lenses) was available as appropriate.

The inspectors reviewed the past two years of maintenance records for select self-contained breathing apparatus units used to support operator activities during accident conditions and designated as "ready for service" to assess whether any maintenance or repairs on any self-contained breathing apparatus unit's vital components were performed by an individual, or individuals, certified by the



manufacturer of the device to perform the work. The vital components typically are the pressure-demand air regulator and the low-pressure alarm. The inspectors reviewed the onsite maintenance procedures governing vital component work to determine any inconsistencies with the self-contained breathing apparatus manufacturer's recommended practices. For those apparatuses designated as "ready for service," the inspectors determined whether the required, periodic air cylinder hydrostatic testing was documented and up-to-date, and the retest air cylinder markings required by the U.S. Department of Transportation were in place.

b. Findings

No findings were identified.

.5 Problem Identification and Resolution (02.05)

a. Inspection Scope

The inspectors evaluated whether problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee corrective action program. The inspectors assessed whether the corrective actions were appropriate for a selected sample of problems involving airborne radioactivity and were appropriately documented by the licensee.

b. Findings

No findings were identified.

2RS4 Occupational Dose Assessment (71124.04)

This inspection constituted one complete sample as defined in IP 71124.04-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the results of radiation protection program audits related to internal and external dosimetry (e.g., licensee's quality assurance audits, self-assessments, or other independent audits) to gain insights into overall licensee performance in the area of dose assessment and focus the inspection activities consistent with the principle of "smart sampling."

The inspectors reviewed the most recent National Voluntary Laboratory Accreditation Program (NVLAP) accreditation report on the vendor's most recent results to determine the status of the contractor's accreditation.

A review was conducted of the licensee procedures associated with dosimetry operations, including issuance/use of external dosimetry (routine, multi-badging, extremity, neutron, etc.), assessment of internal dose (operation of whole body counter, assignment of dose based on derived air concentration-hours, urinalysis, etc.), and evaluation of and dose assessment for radiological incidents (distributed contamination, hot particles, loss of dosimetry, etc.).

The inspectors evaluated whether the licensee had established procedural requirements for determining when external and internal dosimetry was required.

b. Findings

No findings were identified.

.2 External Dosimetry (02.02)

a. Inspection Scope

The inspectors evaluated whether the licensee's dosimetry vendor was NVLAP accredited and if the approved irradiation test categories for each type of personnel dosimeter used were consistent with the types and energies of the radiation present and the way the dosimeter was being used (e.g., to measure deep dose equivalent, shallow dose equivalent, or lens dose equivalent).

The inspectors evaluated the onsite storage of dosimeters before their issuance, during use, and before processing/reading. The inspectors also reviewed the guidance provided to rad-workers with respect to care and storage of dosimeters.

The inspectors assessed whether non-NVLAP accredited passive dosimeters (e.g., direction storage sight read dosimeters) were used according to licensee procedures that provide for periodic calibration, application of calibration factors, usage, reading (dose assessment) and zeroing.

The inspectors assessed the use of active dosimeters (electronic personal dosimeters) to determine if the licensee uses a "correction factor" to address the response of the electronic personal dosimeter as compared to the passive dosimeter for situations when the electronic personal dosimeter must be used to assign dose and whether the correction factor was based on sound technical principles.

The inspectors reviewed dosimetry occurrence reports or corrective action program documents for adverse trends related to electronic personal dosimeters, such as interference from electromagnetic frequency, dropping or bumping, failure to hear alarms, etc. The inspectors assessed whether the licensee had identified any trends and implemented appropriate corrective actions.

b. Findings

No findings were identified.

.3 Internal Dosimetry (02.03)

Routine Bioassay (In-Vivo)

a. Inspection Scope

The inspectors reviewed procedures used to assess the dose from internally deposited nuclides using whole body counting equipment. The inspectors evaluated whether the procedures addressed methods for differentiating between internal and external

contamination, the release of contaminated individuals, the route of intake, and the assignment of dose.

The inspectors reviewed the whole body count process to determine if the frequency of measurements was consistent with the biological half-life of the nuclides available for intake.

The inspectors reviewed the licensee's evaluation for use of its portal radiation monitors as a passive monitoring system to determine if instrument minimum detectable activities were adequate to determine the potential for internally deposited radionuclides sufficient to prompt additional investigation.

The inspectors selected several whole body counts and evaluated whether the counting system used had sufficient counting time/low background to ensure appropriate sensitivity for the potential radionuclides of interest. The inspectors reviewed the radionuclide library used for the count system to determine its appropriateness. The inspectors evaluated whether any anomalous count peaks/nuclides indicated in each output spectra received appropriate disposition. The inspectors reviewed the licensee's 10 CFR 61 data analyses to determine whether the nuclide libraries included appropriate gamma-emitting nuclides. The inspectors evaluated how the licensee accounts for hard-to-detect nuclides in the dose assessment.

b. Findings

No findings were identified.

Special Bioassay (In-Vitro)

a. Inspection Scope

There were no internal dose assessments obtained using in-vitro monitoring for the inspectors to review. The inspectors reviewed and assessed the adequacy of the licensee's program for in-vitro monitoring (i.e., urinalysis and fecal analysis) of radionuclides (tritium, fission products, and activation products), including collection and storage of samples.

The inspectors reviewed the vendor laboratory quality assurance program and assessed whether the laboratory participated in an industry-recognized cross-check program including whether out-of-tolerance results were resolved appropriately.

b. Findings

No findings were identified.

Internal Dose Assessment – Airborne Monitoring

a. Inspection Scope

The licensee had not performed dose assessments using airborne/derived air concentration monitoring since the last inspection.

b. Findings

No findings were identified.

Internal Dose Assessment – Whole Body Count Analyses

a. Inspection Scope

The inspectors reviewed several dose assessments performed by the licensee using the results of whole body count analyses. The inspectors determined whether affected personnel were properly monitored with calibrated equipment and that internal exposures were assessed consistent with the licensee's procedures.

b. Findings

No findings were identified.

.4 Special Dosimetric Situations (02.04)

Declared Pregnant Workers

a. Inspection Scope

The inspectors assessed whether the licensee informed workers, as appropriate, of the risks of radiation exposure to the embryo/fetus, the regulatory aspects of declaring a pregnancy, and the specific process to be used for (voluntarily) declaring a pregnancy.

The inspectors selected individuals who had declared pregnancy during the current assessment period and evaluated whether the licensee's radiological monitoring program (internal and external) for declared pregnant workers was technically adequate to assess the dose to the embryo/fetus. The inspectors reviewed exposure results and monitoring controls employed by the licensee and with respect to the requirements of 10 CFR 20.

b. Findings

No findings were identified.

Dosimeter Placement and Assessment of Effective Dose Equivalent for External Exposures

a. Inspection Scope

The inspectors reviewed the licensee's methodology for monitoring external dose in non-uniform radiation fields or where large dose gradients exist. The inspectors evaluated the licensee's criteria for determining when alternate monitoring, such as use of multi-badging, was to be implemented.

The inspectors reviewed dose assessments performed using multi-badging to evaluate whether the assessment was performed consistent with licensee procedures and dosimetric standards.

b. Findings

No findings were identified.

Shallow Dose Equivalent

a. Inspection Scope

The inspectors reviewed shallow dose equivalent dose assessments for adequacy. The inspectors evaluated the licensee's method (e.g., VARSKIN or similar code) for calculating shallow dose equivalent from distributed skin contamination or discrete radioactive particles.

b. Findings

No findings were identified.

Neutron Dose Assessment

a. Inspection Scope

The inspectors evaluated the licensee's neutron dosimetry program, including dosimeter types and/or survey instrumentation.

The inspectors reviewed neutron exposure situations (e.g., independent spent fuel storage installation operations or at-power containment entries) and assessed whether (a) dosimetry and/or instrumentation was appropriate for the expected neutron spectra; (b) there was sufficient sensitivity for low dose and/or dose rate measurement; and (c) neutron dosimetry was properly calibrated. The inspectors also assessed whether interference by gamma radiation had been accounted for in the calibration and whether time and motion evaluations were representative of actual neutron exposure events, as applicable.

b. Findings

No findings were identified.

Assigning Dose of Record

a. Inspection Scope

For the special dosimetric situations reviewed in this section, the inspectors assessed how the licensee assigned dose of record for total effective dose equivalent, shallow dose equivalent, and lens dose equivalent. This included an assessment of external and internal monitoring results, supplementary information on individual exposures (e.g., radiation incident investigation reports and skin contamination reports), and radiation surveys and/or air monitoring results when dosimetry was based on these techniques.

b. Findings

Introduction: An unresolved item (URI) was identified because additional information was needed by the inspectors to assess the licensee's program when determining an individual's radiological dose of record.

Description: The inspectors reviewed the licensee's process and procedures for resolving discrepant information associated with thermoluminescent dosimeter (TLD) and electronic dosimeter (ED) records involving the same radiologically controlled area (RCA) entry. Specifically, the 2011 TLD blind spiking test results had dose under reports that were unexplained in the tests evaluation. In one instance with no explanation, a TLD test result indicated 142 mRem (millirem) recorded dose versus 219.5 mRem exposed dose. Similarly, when the inspectors reviewed radiation worker exposure evaluations, some individuals were assigned their ED dose as the dose of the record. In other instances, individuals were assigned their TLD dose as the dose of record. The radiation worker exposure evaluations reviewed by the inspectors were incomplete, in that, there were no bases explaining why the ED data or TLD data was used for a given RCA entry.

The inspectors concluded that more information was needed from the licensee to fully understand how the licensee determined several individuals' dose of record (URI 05000266/2011005-02; 05000301/2011005-02, Determining an Individual's Dose of Record with Discrepant TLD/ED Data Inputs).

.5 Problem Identification and Resolution (02.05)

a. Inspection Scope

The inspectors assessed whether problems associated with occupational dose assessment were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. The inspectors assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving occupational dose assessment.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

This inspection constituted one complete sample as defined in IP 71124.06-05.

.1 Inspection Planning and Program Reviews (02.01)

Event Report and Effluent Report Reviews

a. Inspection Scope

The inspectors reviewed the radiological effluent release reports issued since the last inspection to determine if the reports were submitted as required by the Offsite Dose Calculation Manual (ODCM)/TSSs. The inspectors reviewed anomalous results, unexpected trends, or abnormal releases identified by the licensee for further inspection

to determine if they were evaluated, were entered into the CAP, and were adequately resolved.

The inspectors identified radioactive effluent monitor operability issues reported by the licensee as provided in effluent release reports, to review these issues during the onsite inspection, as warranted, given their relative significance, and to determine if the issues were entered into the CAP and adequately resolved.

b. Findings

No findings were identified.

ODCM and FSAR Review Inspection Scope

a. Inspection Scope

The inspectors reviewed FSAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths so they could be evaluated during inspection walkdowns.

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection against the guidance in NUREG-1301, and -0133, and Regulatory Guides (RGs) 1.109, 1.21, and 4.1. When differences were identified, the inspectors reviewed the technical basis or evaluations of the change during the onsite inspection to determine whether they were technically justified and maintained effluent releases ALARA.

The inspectors reviewed licensee documentation to determine if the licensee has identified any non-radioactive systems that have become contaminated as disclosed either through an event report or the ODCM since the last inspection. This review provided an intelligent sample list for the onsite inspection of any 10 CFR 50.59 evaluations and allowed a determination if any newly contaminated systems had an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways, and whether the associated effluents were reported in accordance with RG 1.21.

b. Findings

No findings were identified.

Groundwater Protection Initiative Program

a. Inspection Scope

The inspectors reviewed reported groundwater monitoring results and changes to the licensee's written program for identifying and controlling contaminated spills/leaks to groundwater.

b. Findings

No findings were identified.

## Procedures, Special Reports, and Other Documents

### a. Inspection Scope

The inspectors reviewed LERs, event reports, and/or special reports related to the effluent program issued since the previous inspection to identify any additional focus areas for the inspection based on the scope/breadth of problems described in these reports.

The inspectors reviewed effluent program implementing procedures, particularly those associated with effluent sampling, effluent monitor setpoint determinations, and dose calculations.

The inspectors reviewed copies of licensee and third party (independent) evaluation reports of the effluent monitoring program since the last inspection to gather insights into the licensee's program and aid in selecting areas for inspection review (smart sampling).

### b. Findings

No findings were identified.

## .2 Walkdowns and Observations (02.02)

### a. Inspection Scope

The inspectors walked down selected components of the gaseous and liquid discharge systems to evaluate whether equipment configuration and flow paths align with the documents reviewed in Section 02.01 above and to assess equipment material condition. Special attention was made to identify potential unmonitored release points (such as temporary structures butted against turbine, auxiliary, or containment buildings), building alterations, which could impact airborne or liquid effluent controls, and ventilation system leakage that communicated directly with the environment.

For equipment or areas associated with the systems selected for review that were not readily accessible due to radiological conditions, the inspectors reviewed the licensee's material condition surveillance records, as applicable.

The inspectors walked down filtered ventilation systems to assess for conditions such as degraded high-efficiency particulate air/charcoal banks, improper alignment, or system installation issues that would impact the performance or the effluent monitoring capability of the effluent system.

As available, the inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent (including sample collection and analysis) to evaluate whether appropriate treatment equipment was used and the processing activities align with discharge permits.

The inspectors determined if the licensee has made significant changes to their effluent release points, e.g., changes subject to a 10 CFR 50.59 review or require NRC approval of alternate discharge points.



As available, the inspectors observed selected portions of the routine processing and discharge of liquid waste (including sample collection and analysis) to determine if appropriate effluent treatment equipment was being used and that radioactive liquid waste was being processed and discharged in accordance with procedure requirements and aligns with discharge permits.

b. Findings

No findings were identified.

.3 Sampling and Analyses (02.03)

a. Inspection Scope

The inspectors selected effluent sampling activities, consistent with smart sampling, and assessed whether adequate controls have been implemented to ensure representative samples were obtained (e.g., provisions for sample line flushing, vessel recirculation, composite samplers, etc.)

The inspectors selected effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors to assess whether controls were in place to ensure compensatory sampling was performed consistent with the radiological effluent TSs/ODCM and that those controls were adequate to prevent the release of unmonitored liquid and gaseous effluents.

The inspectors determined whether the facility was routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

The inspectors reviewed the results of the inter-laboratory comparison program to evaluate the quality of the radioactive effluent sample analyses and assessed whether the inter-laboratory comparison program includes hard-to-detect isotopes as appropriate.

b. Findings

No findings were identified.

.4 Instrumentation and Equipment (02.04)

Effluent Flow Measuring Instruments

a. Inspection Scope

The inspectors reviewed the methodology the licensee used to determine the effluent stack and vent flow rates to determine if the flow rates were consistent with radiological effluent TSs/ODCM or FSAR values, and the differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

b. Findings

No findings were identified.

## Air Cleaning Systems

### a. Inspection Scope

The inspectors assessed whether surveillance test results since the previous inspection for TS required ventilation effluent discharge systems (high-efficiency particulate air and charcoal filtration), such as the Standby Gas Treatment System and the Containment/Auxiliary Building Ventilation System, met TS acceptance criteria.

### b. Findings

No findings were identified.

## .5 Dose Calculations (02.05)

### a. Inspection Scope

The inspectors reviewed all significant changes in reported dose values compared to the previous radiological effluent release report (e.g., a factor of five, or increases that approach Appendix I criteria) to evaluate the factors, which may have resulted in the change.

The inspectors reviewed radioactive liquid and gaseous waste discharge permits to assess whether the projected doses to members of the public were accurate and based on representative samples of the discharge path.

The inspectors evaluated the methods used to determine the isotopes that are included in the source term to ensure all applicable radionuclides were included within detectability standards. The review included the current 10 CFR 61 analyses to ensure hard-to-detect radionuclides were included in the source term.

The inspectors reviewed changes in the licensee's offsite dose calculations since the last inspection to evaluate whether changes were consistent with the ODCM and RG 1.109. Inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to evaluate whether appropriate factors were being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to assess whether changes (e.g., significant increases or decreases to population in the plant environs, changes in critical exposure pathways, the location of nearest member of the public or critical receptor, etc.) had been factored into the dose calculations.

For the releases reviewed above, the inspectors evaluated whether the calculated doses (monthly, quarterly, and annual dose) were within the 10 CFR Part 50, Appendix I, and TS dose criteria.

The inspectors reviewed, as available, records of any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc.) to ensure the abnormal discharge was monitored by the discharge point effluent monitor. Discharges made with inoperable effluent radiation monitors or unmonitored leakages were reviewed to ensure that an evaluation was made of the discharge to satisfy 10 CFR 20.1501 so as to account for the source term and projected doses to the public.

b. Findings

No findings were identified.

.6 Groundwater Protection Initiative Implementation (02.06)

a. Inspection Scope

The inspectors reviewed monitoring results of the Groundwater Protection Initiative to determine if the licensee had implemented its program as intended and to identify any anomalous results. For anomalous results or missed samples, the inspectors assessed whether the licensee had identified and addressed deficiencies through its corrective action program.

The inspectors reviewed identified leakage or spill events and entries made into 10 CFR 50.75(g) records. The inspectors reviewed evaluations of leaks or spills and reviewed any remediation actions taken for effectiveness. The inspectors reviewed onsite contamination events involving contamination of groundwater and assessed whether the source of the leak or spill was identified and mitigated.

For unmonitored spills, leaks, or unexpected liquid or gaseous discharges, the inspectors assessed whether an evaluation was performed to determine the type and amount of radioactive material that was discharged by:

- assessing whether sufficient radiological surveys were performed to evaluate the extent of the contamination and the radiological source term and assessing whether a survey/evaluation had been performed to include consideration of hard-to-detect radionuclides; and
- determining whether the licensee completed offsite notifications, as provided in its Groundwater Protection Initiative implementing procedures.

The inspectors reviewed the evaluation of discharges from onsite surface water bodies that contain or potentially contain radioactivity, and the potential for groundwater leakage from these onsite surface water bodies. The inspectors assessed whether the licensee was properly accounting for discharges from these surface water bodies as part of their effluent release reports.

The inspectors assessed whether onsite groundwater sample results and a description of any significant onsite leaks/spills into groundwater for each calendar year were documented in the Annual Radiological Environmental Operating Report for the radiological environmental monitoring program or the Annual Radiological Effluent Release Report for the Radiological Effluent Technical Specifications.

For significant, new effluent discharge points (such as significant or continuing leakage to ground water that continues to impact the environment if not remediated), the inspectors evaluated whether the ODCM was updated to include the new release point.

b. Findings

No findings were identified.

.7 Problem Identification and Resolution (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with the effluent monitoring and control program were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee corrective action program. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

This inspection constituted one complete sample as defined in IP 71124.08-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the FSAR, the process control program (PCP), and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

The inspectors reviewed the scope of any quality assurance audits in this area since the last inspection to gain insights into the licensee's performance and inform the "smart sampling" inspection planning.

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

The inspectors selected areas where containers of radioactive waste were stored, and evaluated whether the containers were labeled in accordance with 10 CFR 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR 20.1905, "Exemptions to Labeling Requirements," as appropriate.

The inspectors assessed whether the radioactive material storage areas were controlled and posted in accordance with the requirements of 10 CFR 20, "Standards for Protection Against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors evaluated whether they were secured against unauthorized removal and controlled in accordance with 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage," as appropriate.

The inspectors evaluated whether the licensee established a process for monitoring the impact of long-term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) that was sufficient to identify potential unmonitored, unplanned releases, or non-conformance with waste disposal requirements.

The inspectors selected containers of stored radioactive material, and assessed for signs of swelling, leakage, and deformation.

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the FSAR, ODCM, and PCP.

The inspectors reviewed administrative and/or physical controls (i.e., drainage and isolation of the system from other systems) to assess whether equipment which was not in-service or abandoned-in-place would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure. The inspectors assessed whether the licensee reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR 50.59, "Changes, Tests, and Experiments."

The inspectors reviewed the adequacy of changes made to the radioactive waste processing systems since the last inspection. The inspectors evaluated whether changes from what was described in the FSAR were reviewed and documented in accordance with 10 CFR 50.59, as appropriate and to assess the impact on radiation doses to members of the public.

The inspectors selected processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers and assessed whether the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the PCP, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR 61.55, "Waste Classification."

For those systems that provide tank recirculation, the inspectors evaluated whether the tank recirculation procedures provided sufficient mixing.

The inspectors assessed whether the licensee's PCP correctly described the current methods and procedures for dewatering and waste stabilization (e.g., removal of freestanding liquid).

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- dry active waste;
- primary (reactor coolant) resin; and
- ALPS resin.

For the waste streams listed above, the inspectors assessed whether the licensee's radiochemical sample analysis results (i.e., 10 CFR 61 analysis) were sufficient to support radioactive waste characterization as required by 10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors evaluated whether the licensee's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on the current 10 CFR 61 analysis for the selected radioactive waste streams.

The inspectors evaluated whether changes to plant operational parameters were taken into account to: (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update; and (2) assure that waste shipments continued to meet the requirements of 10 CFR 61 for the waste streams selected above.

The inspectors evaluated whether the licensee had established and maintained an adequate quality assurance program to ensure compliance with the waste classification and characterization requirements of 10 CFR 61.55 and 10 CFR 61.56, "Waste Characteristics."

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspectors assessed whether the requirements of applicable transport cask certificate of compliance had been met. The inspectors evaluated whether the receiving licensee was authorized to receive the shipment packages. The inspectors evaluated whether the licensee's procedures for cask loading and closure procedures were consistent with the vendor's current approved procedures.

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

- the licensee's response to NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979; and
- Title 49 CFR 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training."

b. Findings

No findings were identified.

.6 Shipping Records (02.06)

a. Inspection Scope

The inspectors evaluated whether the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and UN number for the following radioactive shipments:

- Radioactive Material Shipment Number 10-043;
- Radioactive Material Shipment Number 11-0047;
- Radioactive Material Shipment Number 11-0049; and
- Radioactive Material Shipment Number 11-0051.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by the licensee at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee corrective action program. Additionally, the inspectors evaluated whether the corrective actions were appropriate for a selected sample of problems documented by the licensee that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed results of selected audits performed since the last inspection of this program and evaluated the adequacy of the licensee's corrective actions for issues identified during those audits.

b. Findings

No findings were identified.

#### 4. OTHER ACTIVITIES

##### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

##### 4OA1 Performance Indicator Verification (71151)

##### .1 Safety System Functional Failures

##### a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures performance indicator (PI) for Unit 1 and Unit 2 for the fourth quarter 2010 through the third quarter 2011. To determine the accuracy of the PI data reported during this period, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance WOs, issue reports, event reports and NRC Integrated Inspection Reports for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two safety system functional failure samples as defined in IP 71151-05.

##### b. Unresolved Item

Introduction: A URI was identified to determine whether a performance deficiency existed regarding the licensee's reporting of safety system functional failures.

Description: While performing the PI validation for safety system functional failures, the inspectors found no errors in the pertinent LERs. However, the inspectors identified several CRs that require further review to determine whether the PI was affected. The issues were identified in the CAP as AR01663181 and AR01645462 and will be reviewed by the resident inspectors. Additionally, AR01678709 is being reviewed by Division of Reactor Safety. This issue related to the qualification of the EDGs has the potential to affect the PI. The Office of Nuclear Reactor Regulation is reviewing two URIs (05000266/2011003-02, 05000301/2011003-02, Seismic Qualification of the Qualification of the Condensate Storage Tank and Related Flooding, and 05000266/2011003-03, 05000301/2011003-03, RHR Pump Operability With Tanks In Auxiliary Building Not Seismically Qualified) relating to seismic qualification of SSCs important to safety, which also have the potential to impact the PI. At the end of the inspection period, the inspectors were waiting for additional information, or the completed assessments, to determine the impact on the reported data for the PI (URI 05000266/2011005-03; 05000301/2011005-03, Condition Reports and URIs Potentially Affecting Safety System Functional Failure Performance Indicator).



## 4OA2 Identification and Resolution of Problems (71152)

### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection**

#### .1 Routine Review of Items Entered Into the Corrective Action Program

##### a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

##### b. Findings

No findings were identified.

#### .2 Daily Corrective Action Program Reviews

##### a. Inspection Scope

To assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

##### b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 40A2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six-month period of July 2011 through December 2011, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted one semi-annual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.4 Closed) URI (05000266/2011003-05; 05000301/2011003-05): Diesel-Driven Fire Pump Loss of Suction During Surveillance Testing

a. Inspection Scope

The NRC documented a URI during the second quarter of 2011 (ADAMS Accession Number ML11217A058) due to the failure of the portable diesel-driven fire water pump during surveillance test, O-PT-FP-014, "Z-935 Portable Diesel-Driven Fire Water Pump Quarterly Functional Test," Revision 4, when the pump was unable to take suction from the lake using the portable strainer. Specifically, during the first attempt the pump strainer clogged with grass; and on the second attempt, when the strainer was moved further into the lake, the strainer turned upright into the air space and the pump lost suction. The licensee entered this issue into the CAP as AR01663114, "Loss of Pump Suction Twice." The inspectors were concerned that the failure mechanism of the pump could adversely impact the licensee's ability to perform its mitigation strategies. The inspectors identified this issue as a URI pending a review of the failure and procedural adequacy relative to the current licensing basis.

During this inspection, the inspectors reviewed associated procedures, design and licensing basis documents, CAP documents and their associated evaluations, and interviewed licensee personnel. The inspectors determined that although the pump failed to take suction from the lake during the test, the licensee had alternate/preferred suction sources to ensure the pump could be operated as designed. Additionally,

the licensee took corrective actions that appeared to address the issues which caused the pump to lose suction during the test.

Based on the above assessment, the inspectors determined that no performance deficiencies or violations of regulatory requirements of safety significance existed. The inspectors had no further concerns in this area. Documents reviewed are listed in the Attachment to this report. This URI is closed.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.5 Selected Issue Follow-up: Closure of URI 05000266/2011002-03: 05000301/2011002-03, Out-of-Service Radiation Monitors Potentially Impact Emergency Classification Ability

a. Inspection Scope

The NRC documented a URI during the first quarter of 2011 (ADAMS Accession Number ML111190331) related to the licensee's ability to provide a means to promptly classify various radiological emergency initiating conditions and EALs, and the licensee's compensatory measures to ensure the prompt implementation of the Point Beach EP while the radiation monitors utilized by the operators were out-of-service due to failure of instrument bus 1XY-114. Specifically, on January 18, 2011, the bus failed, causing a loss of multiple radiation monitors used in the EP, some of which were used in identifying entry into EALs. The inspectors were concerned that this loss of radiation monitoring instrumentation might impact the effectiveness of the EP and that the compensatory measures taken in response to the instrument bus failure could impact the licensee's ability perform EAL classification in a timely and accurate manner. The licensee issued AR01614417 and AR01613789 to address these concerns.

During this inspection, the inspectors reviewed the additional information provided by the licensee, including associated procedures, EP-related documents, and CAP documents with their associated evaluations. Although not planned, the inspectors found that there was not a condition where the out-of-service radiation monitors were not covered by another in-service radiation monitor or alternate indication. As such, these alternate indications provided sufficient information which would allow the licensee to classify an event. However, the inspectors determined that the documentation of backup radiation monitors and/or alternate indication, prioritization for correction/restoration, and implementation of compensatory measures was unclear in existing procedures. As a result, the licensee created Emergency Plan Maintenance Procedure (EPMP) 9.0, "Equipment Important to Emergency Preparedness," with the purpose of ensuring "that when equipment important to emergency preparedness is removed from service for maintenance or is in a degraded condition, the correction restoration priority is assigned, compensatory measure are implemented, and the equipment is promptly restored to a functional condition."

Based on the above assessment, the inspectors determined that no performance deficiencies or violations of regulatory requirements of safety significance existed. Documents reviewed are listed in the Attachment to this report. This URI is closed.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.6 Selected Issue Follow-up: Use of Scaffolding as a Temporary Barrier

a. Inspection Scope

During routine plant observations, the inspectors found that the licensee was erecting scaffolding as temporary barriers to protect equipment from bumping hazards. The inspectors reviewed this practice against station procedures. All scaffolding had been installed using the requirements of the related installation procedure.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.7 Annual Sample: Review of Operator Workarounds

a. Inspection Scope

The inspectors evaluated the licensee's implementation of the process used to identify, document, track, and resolve operational challenges. Inspection activities included, but were not limited to, a review of the cumulative effects of the operator workarounds (OWAs) on system availability and the potential for improper operation of the system, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents.

The inspectors performed a review of the cumulative effects of OWAs. The documents listed in the Attachment to this report were reviewed to accomplish the objectives of the inspection procedure. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate threshold, had entered them into the CAP, and proposed or implemented appropriate and timely corrective actions which addressed each issue. Reviews were conducted to determine if any operator challenge could increase the possibility of an Initiating Event, if the challenge was contrary to training, required a change from longstanding operational practices, or created the potential for inappropriate compensatory actions. Additionally, all temporary modifications were reviewed to identify any potential effect on the functionality of mitigating systems, impaired access to equipment, or required equipment uses for which the equipment was not designed. Daily plant and equipment status logs, degraded instrument logs, and

operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified operator workarounds.

This review constituted one operator workaround annual inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.1 Notice of Unusual Event: Loss of All Offsite Power to Essential Busses for Greater Than 15 Minutes

a. Inspection Scope

The inspectors reviewed the plant's response to a Notification of Unusual Event (NOUE) that occurred on November 27, 2011, at 2:26 a.m., when an undervoltage condition occurred on SR busses 1A-05 and 1A-06 (4.16 kilo Volts) during the restoration or auxiliary transformer 1X-03 (a 345-kilo Volt to 13.8 kilo Volt transformer in the switchyard). The EP was entered because the duration of the loss of power to the SR busses exceeded 15 minutes. The loss of power occurred due to the failure of the 1X-03 transformer supply-side disconnect. This specialized disconnect, called a circuit switcher, failed to fully engage resulting in an undervoltage condition on the SR busses. The station EDGs started and carried the loads on the related busses. The event was terminated at 7:00 a.m. on November 27, when power was restored to the SR busses from an alternate source. All equipment operated as expected during the transient and no anomalies were noted. The inspectors reviewed the maintenance requirements for the related circuit switchers and found no issues. Because this condition was caused by a random failure of a non-SR component in the switchyard, and because no performance deficiencies were identified, no violations of regulatory requirements were identified and this issue is closed. Documents reviewed are listed in the Attachment to this report.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

.2 (Closed) LER 05000301/2011-001-00: Both Trains of SI Inoperable

On February 27, 2011, during testing of the Unit 2, SI Train A, an operator took initiative to inspect SI Train B. The operator found that the oiler for SI Pump B had rotated, resulting in a loss of lubricating oil to the pump inboard bearing. As a result of this condition, the licensee declared Train B inoperable. With Train A inoperable for testing, and Train B inoperable for the oiler deficiency, the licensee entered TS 3.0.3. The licensee took immediate corrective actions to restore Train B to service by refilling and reinstalling the oiler. Subsequently, the licensee performed a root cause evaluation for the issue and determined that "the oiler was modified in 1995 and that the modification introduced a latent design/configuration flaw that rendered the oilers susceptible to

inadvertent bumping events.” The licensee instituted corrective actions to modify the design to make to oiler less susceptible to becoming inadvertently dislodged. The inspectors considered this issue as a licensee-identified violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” because the issue was identified as the result of an operator performing a deliberate and focused observation of the SI system, and because the issue was not discovered as a result of the condition being self-revealing. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

#### 4OA5 Other Activities

##### .1 Flow Accelerated Corrosion (FAC) Inspection in Support of Extended Power Uprate (EPU) (71004)

###### a. Inspection Scope

The objectives of this inspection were to determine whether licensee programs and procedures relative to FAC monitoring and maintenance were adequately addressing plant changes resulting from EPU in accordance with 10 CFR 50.65 and licensee commitments to implement Generic Letter 89-08, “Erosion/Corrosion Induced Pipe Wall Thinning.” The inspectors reviewed the FAC program to determine whether the licensee had taken required action to detect adverse effects (wall thinning) on systems and components as a result of operating changes related to EPU, such as increased flow in primary or secondary systems, including their interfacing systems.

The inspectors reviewed procedures and administrative controls to determine whether those procedures and controls ensure the structural integrity of high energy (single-phase and two-phase) carbon steel systems. The inspector reviewed the licensee’s established FAC program to determine whether the degradation of piping and components was described in the procedures, and the examination activities were managed, maintained, and documented. In particular, the inspectors reviewed those steps taken to identify specific locations that were most likely to be adversely affected by a change (increase) in operating variables (temperature, flow, etc.) as a result of increased power levels. Also, the inspectors reviewed the licensee’s FAC activity to determine status and effective utilization of the industry sponsored predictive program [CHECWORKS] to verify the selection of the most susceptible locations for inspection and additional locations based on unique operating conditions and industry experience. Also, the inspectors reviewed how inspection data was trended to determine FAC wear rates and identify the future inspection locations.

The inspectors selected portions of the FW system, a risk significant system affected by EPU, for review of the licensee’s FAC monitoring activities and effectiveness. The inspectors performed a walkdown of portions of the selected system (piping and components) to verify the as-built configuration matched the plant-specific FAC program isometrics. The inspectors also reviewed selected locations in this system that had been identified as susceptible to a projected increase in FAC wear rates using the higher EPU operational variables with the CHECWORKS model. The inspectors determined that the increase in wear rates was recognized and being incorporated into the program database for future inspection sample selection.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On January 3, 2012, the inspectors presented the inspection results to Mr. L. Meyer, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- the results of the Emergency Preparedness program inspection were discussed with Mr. J. Schleif on October 27, 2011;
- the results of the inservice inspection with Mr. L. Meyer on October 27, 2011; and
- the results of the radiation safety inspection conducted October 17-21, 2011, with Mr. L. Meyer, on October 21, 2011; and via telephone conference with Ms. K. Locke on December 19, 2011.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received during the inspection was returned to the licensee.

4OA7 Licensee-Identified Violations

The following violation of very low significance (Green) or Severity Level IV was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as an NCV.

**Cornerstone: Mitigating Systems**

A licensee-identified violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the SI pump oiler modifications performed in 1995, was identified. The details of this issue are discussed in section 4OA3.2.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

J. Schleif, Emergency Preparedness Manager  
J. Costedio, Licensing Manager  
F. Flentje, Licensing Supervisor  
L. Meyer, Site Vice President  
B. Jensen, NDE Level III  
B. Scherwinski, Licensing Analyst  
S. Forsha, Reactor Vessel Program Engineer

#### Nuclear Regulatory Commission

M. Kunowski, Chief, Reactor Projects Branch 5



## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

05000266/2011005-01	NCV	Failure to Disposition a Pipe Support in Accordance with ASME Code (Section 1R08.1)
05000266/2011005-02; 05000301/2011005-02	URI	Determining an Individual's Dose of Record with Discrepant TLD/ED Data Inputs (Section 2RS4.4)
05000266/2011005-03; 05000301/2011005-03	URI	Condition Reports and URIs Potentially Affecting Safety System Functional Failure Performance Indicator (Section 4OA1)

### Closed

05000266/2011005-01	NCV	Failure to Disposition a Pipe Support in Accordance with ASME Code (Section 1R08.1)
05000266/2011002-03; 05000301/2011002-03	URI	Out-of-Service Radiation Monitors Potentially Impact Emergency Classification Ability (Section 4OA2.5)
05000301/2011-001-00	LER	Both Trains of SI Inoperable (Section 4OA3.2)

### Discussed

05000266/2011003-02; 05000301/2011003-02	URI	Seismic Qualification of the Qualification of the Condensate Storage Tank and Related Flooding (Section 4OA1.1)
05000266/2011003-03; 05000301/2011003-03	URI	RHR Pump Operability With Tanks In Auxiliary Building Not Seismically Qualified (Section 4OA1.1)
05000266/2011003-05	URI	Diesel-Driven Fire Pump Loss of Suction During Surveillance Testing (Section 4OA2.4)

## LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### 1R01 Adverse Weather Protection

- AOP-13C; Severe Weather Conditions; Revision 22
- AR01610946; Cold Weather Readiness Period Actions
- AR01612256; Degraded Performance Of Heat Trace Circuit HT-EH-20B
- AR01653371; Feed ISO Valve Qualified Temperature Rating In Question
- AR01662344; Install Gaskets Under Manhole Covers In U2 Façade
- AR01664792; Japan EQ EDMG-2 Severe Weather Guidance
- AR01668685; Water Located Within An Electrical Pull Box
- AR01671772; Electrical Drawing Not Issued On Installed Equipment
- AR01672109; PMT On RS-15 Unsat
- AR01673299; 1B52-115H Handle Broken
- AR01673401; Insulation Cover Not Installed Correctly
- AR01679016; RWST Heat Trace Work Delay, Cold Weather Readiness
- AR01686197; Cold Weather Prep WOs Not Fixed In Timely Manner
- AR01686334; TS-4567 Is Broken – Cold Weather Preps Issue
- AR01686391; Cold Weather: Glycol Mixture Is Too Weak T-49A
- AR01686393; Cold Weather: Glycol Mixture Is Too Weak T-49B
- AR01686395; Cold Weather: Heating Unit May Be Missing A Belt
- AR01686769; HX-275A WH#4 Electric Heater Not Working
- AR01686775; HX-275B WH#4 Thermostat Not Accessible
- AR01691545; Winter Readiness For Main Feed Isolation Valves
- AR01692235; Received An Unexpected Alarm On Unit 2 Façade Freeze Panel
- AR01692238; Received An Unexpected Alarm On Unit 2 Façade Freeze Panel
- AR01694071; Repair WH 6 Sprinkler – NEIL Identified And Winter Prep Issue
- AR01694899; FFTE-01-38E Thermo Couple Wire Needs To Be Replaced
- AR01696448; EC 12052 U-2 MFIV Heat Trace Not Functional
- AR01703784; Weather Stripping Nears Repair/Replacement
- AR01705692; Unit 2 MFIV Backup Nitrogen Bottles
- AR01707957; Valve Packing Leaks Apparently Related To Cold Weather
- Drawing 319759; Diesel Generator; Revision 07
- Drawing SK-EC-16278-EO2; NE Side Underground Conduits; November 12, 2010
- Drawing SK-EC-16278-EO5; Conduit Trench Sections And Table; November 11, 2010
- Drawing SK-EC-16278-EO7; Grounding Plan Notes And Details; November 11, 2010
- FSAR Section 10.1; Steam And Power System; UFSAR 2009
- FSAR Section 15.2; Aging Management Programs And Time Limited Aging Analysis; UFSAR 2010
- FSAR Section 2.6; Meteorology; UFSAR 2008
- FSAR Section 5.1; Containment System Structure; UFSAR 2009
- FSAR Section 8.8; Diesel Generator (DG) System; UFSAR 2008
- FSAR Section 8.9; Gas Turbine System (GT); UFSAR 2008
- IN 98-002; NRC Information Notice; Nuclear Power Plant Cold Weather Problems And Protective Measures; December 19, 2000

- IN 98-02; NRC Information Notice; Nuclear Power Plant Cold Weather Problems And Protective Measures; January 21, 1998
- INPO Just-In-Time Operating Experience; Cold Weather Preparations; Revision 2
- INPO Just-In-Time Operating Experience; Cold Weather Preparations; Revision 3
- INPO SOER 02-1; Severe Weather; December 3, 2002
- INPO SOER 10-1; Large Power Transformer Reliability; March 17, 2010
- JIT-015; INPO Just-In-Time Operating Experience; Cold Weather Preparations; Revision 4
- Letter From G. Kennedy, Manitowac County Highway Commissioner, To J. Schleif, Emergency Preparedness Manager, Point Beach Nuclear Plant; November 3, 2010
- MI 32.20; FPL/Point Beach Nuclear Plant Snow Removal Plan; Revision 0
- NUREG-0933; Resolution Of Generic Safety Issues: Issue 45: Inoperability Of Instrumentation Due To Extreme Cold Weather; Revision 2
- OM 3.30; Operations Snow Emergency Staffing; Revision 3
- OM 3.30; Operations Snow Emergency Staffing; Revision 3
- OP-AA-102-1002; Seasonal Readiness; Revision 0
- Operating Experience Digest; Cold Weather Events; November 2005
- PC 49 Part 1; Turbine Hall Ventilation Unit 1; Completed September 17, 2011
- PC 49 Part 5; Cold Weather Checklist: Outside Areas And Miscellaneous; Completed September 20, 2011
- PC 49; NNSR; Cold Weather Preparations; Completed May 29, 2011
- Site Certification Letter For Cold Weather Readiness Period 2011 (CWRP) Per OP-AA-102-1002 Seasonal Readiness, Attachment 6
- WANO SOER 2002-1; Severe Weather; June 2002
- WM-01.17 WR Requirement And Attribute Report; Seasonal Readiness; October 10, 2011
- Work Request 00040901; HX-243A Is Not Properly Heating Battery Room D-105

#### 1R04 Equipment Alignment

- 1-SOP-RH-002; RHR System Operation; Revision 5
- 2-CL-CC-001; Component Cooling Unit 2; Revision 13
- AR01376484; ECA-0.0 Unit 2 Rev. 52 Loss Of All AC Vs. RCP Seal Cooling
- AR01376487; ECA-0.0 Unit 2 Rev. 52 Steps 22 & 25 Don't Work Properly
- AR01698142; SF-14 And SF-15 Have Boric Acid Build (NRC Identified)
- CL 11A G-02; G-02 Diesel Generator Checklist; Revision 28
- CL 5C; Spent Fuel Pool Cooling And Refueling Water Circulating Pump Normal Operation Valve Lineup; Revision 12
- OP 7A; Placing Residual Heat Removal System in Operation; Revision 48
- P&ID Auxiliary Coolant System; Revision 68
- RP 1B Unit 2; Recovery From Refueling; Revision 3

#### 1R05 Fire Protection

- AR01679662; Obstruction To Fire Brigade Cart
- AR01683763; Improvements Needed In Transient Combustible Storage
- AR01684500; Appendix R Cart Blocked By Siemens Outage Equipment
- AR01684735; Temporary Coverings In U1 TH And Blocked Hose Reel
- AR01687419; Transient Combustibles U1 TH 44' Elev.
- AR01687430; Violation Of MA-AA-212-1000 Material Handling/Wheeled Cart
- AR01698206; NRC Observation Of FEP Plan Title
- AR01698257; NRC Observation Regarding Fixed Fire Detection To FEP 4.10
- AR01698260; NRC Observation Of FEP 4.10 Location Section

- AR01698263; NRC Question Of Detector Labeling In Pipe Chase #4
- Condition Evaluation For AR01679662; Access To U2 By Fire Brigade U1 Cart Questioned
- Drawing 285034; Fire Emergency Procedure 4.10 Aux Building & Containment, Elev. 8'; Revision 03
- Drawing 285035; Fire Emergency Procedure 4.10 Aux Building & Containment, Elev. 44'; Revision 03
- FEP 4.1; PAB West And Central; Revision 9
- FEP 4.10; Auxiliary Building; Revision 7
- FEP 4.14; Turbine Hall Unit 1; Revision 9
- FOP 1.2; Potential Fire Affected Safe Shutdown Components; Revision 20
- NP 1.9.9; Transient Combustible Control; Revision 19
- PBNP Fire Protection/Appendix R Fire Surveillance; June 28, 2011
- PBNP Fire Protection/Appendix R Fire Surveillance; October 6, 2011

#### 1R08 Inservice Inspection Activities

- AR01625149; Boric Acid Accumulation On 2SI-835A; March 2, 2011
- AR01651777; Boric Acid Engulfing Pipe Plug Between 1SI-874B and 1Z-275B; May 15, 2011
- AR01693306; Monthly Walkdown IAW NP 1.9.6 PAB Area No. 36; October 5, 2011
- AR01694495; FAC Inspection With Component Below 87.5 Percent Nominal Wall; October 9, 2011
- AR01694734; FAC Inspection With Component Below 87.5 Percent Nominal Wall; October 10, 2011
- AR01694825; 2CV-00300A, Adjust Packing And Clean Boric Acid; October 10, 2011
- DWG ISI-1255; ISI Isometric PBNP Unit 1 Safety Injection Pipes P-15A And P-15B Discharge
- IDR 2010-007; Pump Casting Weld, RCP-A-Weld-B; March 23, 2010
- IDR 2010-009; Rigid Support, HB-19-S626; March 18, 2010
- IDR 2010-011; Spring Hanger, PSSH-002-3; March 22, 2010
- IDR 2010-012; Rigid Support, SI-1501R-2-S845; March 22, 2010
- IDR 2010-019; Spring Hanger, AC-601R-6-H6; March 27, 2010
- MRS-TRC-2132; Point Beach Unit 1 Appendix H Techniques Fall 2011 S/G Inspection; October 1, 2011
- NCR 25494-000-G61-GAQ-00378; Preheat Not Performed; September 23, 2011
- PQR PrQR-W-12; GTAW For P-8 To P-8; Revision 1
- PQR W-66; GTAW For P-8 To P-8; Revision 0
- SG-SGMP-08-7; Steam Generator Condition Monitoring Assessment Of Fall 20078 Inspection Results And Operational Assessment For Operating Cycles 32 And 33 Point Beach Unit 1 U1R31; Revision 0
- SG-SGMP-11-20; Steam Generator Degradation Assessment For Point Beach Unit 1, U1R33; August 2011
- WO 00362834; 1SI-891B, Replace Valve; February 12, 2010
- WPS FP-PE-B31-P8P8-GTSM-037; GTAW P-8 To P-8 Material; Revision 4

#### 1R11 Licensed Operator Regualification Program

- ACE 01126879; During U2R29 Second Reduced Inventory Period, Reactor Level As Indicated On LT-447B, RC Reduced Inventory Level Indicator Vessel Local Standpipe Level Indicator Was 21-7/8"
- AR00583634; Loss Of Two Channels Of Electronic RX Drain Down Indication
- AR01057060; 2LT-433 PZR Cold Cal Indication Problems During RCS Draining
- AR01670959; SW-2830 Not Controlling Temperature Properly

- AR01685819; Received Unexpected Alarm: SA Compressor Discharge Temp High
- DBD-06; Instrument & Service Air System (I&SA); Revision 6
- DBD-12; Service Water System (SW); Revision 17
- Figure 10.2.35; Unit 1 Reactor Coolant Vent & Draindown System; Revision 3
- Figure 10.6.1; Chemical & Volume Control System; Revision 4
- FSAR Section 5.2; Containment Isolation System; UFSAR 2010
- FSAR Section 9.7; Instrument Air (IA)/Service Air (SA); UFSAR 2008
- H-4; Joy Manufacturing Co.; Section 5; Page 3
- JIT-033; Draining The Reactor Coolant System; Revision 3
- OP 4D Part 1; Draining The Reactor Coolant System; Revision 79
- OP 4E; Reactor Coolant System Lowered Inventory Requirements Unit 1; Revision 3
- PBN LOC 11F 002S; Loss of Instrument Bus; Completed November 29, 2011
- PBN LOC 11F 013L; U1R33 JITT, RCS Drain To 70%; Completed October 4, 2011
- PI Data For SW Temp Control Valve; June 1 To September 20, 2011
- Point Beach Nuclear Plant LOCT Cycle 11F Schedule; November 3, 2011
- SEG PBN LOC 11F 002S; Loss Of Instrument Bus; November 23, 2011
- Significant Operating Experience Report 09-1; August 31, 2009

#### 1R12 Maintenance Rule Effectiveness

- 3.52 ECCS – Operating; LCO 3.5.2; Unit 1 – Amendment No. 209; Unit 2 – Amendment No. 214
- 3.53 ECCS – Shutdown; LCO 3.5.3; Unit 1 – Amendment No. 215; Unit 2 – Amendment No. 220
- 3.7.5 Auxiliary Feedwater (AFW); Unit 1 – Amendment No. 238, Unit 2 – Amendment No. 242
- ACA 01649202-02; Service History For Other Safety Related Single State Pumps Was Evaluated
- ACE 1614345-02; DA-325 Check Valve Failed During IT-100; Revisions 0 And 1
- ACE 1651615-02; During Performance OF PBTP 186, A Leak Occurred in The Socket Weld; Revision 0
- AR01196930; SW Cooling Flow To The 1P-29 Slightly Blocked
- AR01614345; DA-00325 Check Valve Stuck Open
- AR01649202; 2P-10B, RHR Pump Losing Oil
- AR01665153; Valve Leaking Oil
- AR01666371; DA-318 Failed To Seat During IT-100
- AR01666743; Perform RMP 9027
- AR01691815; 2P-010A, Inspect And Replace Rotor In 2R32, ACE01649202
- AR01694288; Plastic FME Pipe Plug Found Left In Gland Cooling Piping
- AR01721205; Change In How IT-100 Is Performed On G-03 And G-04
- B 3.53 ECCS – Shutdown; Unit 1 – Amendment No. 201; Unit 2 – Amendment No. 206
- Calculation Note Number CN-CRA-08-10; Westinghouse Electric Company LLC; Westinghouse Proprietary Class 2; Revision 1
- Control #000265; Byron Jackson Pump Division; Installation And Operation Instructions: DVMX, Serial No. 681-S-1029/31
- Correspondence From: P. Gonzales, Senior Vibration Specialist, Flowserve; To: Wisconsin Electric-Point Beach Nuclear Station-Auxiliary Feed Water Pumps, 3x4x9D-9 Stage DVMX, S/N 681-S-1028/29, 3x4x9B-9 State DVMX, S/N 681-S-1030/31; February 11, 2000
- Correspondence From: P. Prom, Nuclear Account Manager, Flowserve; To: P. Baranowski, Point Beach Nuclear Station; Re: Auxiliary Feed Water Pump – Motor And Turbine Driven 3x4x9 DVMX, S/N 681-S-1028/31; November 8, 2011

- Correspondence From: P. Prom, Nuclear Account Manager, Flowserve; To: P. Baranowski, NextEra Energy Point Beach; Re: Auxiliary Feed Water Pumps, Byron Jackson Model 3x4x9 DVMX 9-Stage Packing Leakage; March 2, 2001; June 19, 2009
- Correspondence From: P. Prom, Nuclear Specialist, Flowserve; To: Wisconsin Electric, Point Beach Nuclear Station; Re: Aux. Feed Water Pumps, Minimum Flow Analysis, – S/N 681-S-1028/29 Turbine Driven, S/N 681-S-1030/31 Motor Driven; March 2, 2001
- DBD-01; Auxiliary Feedwater System; Revision 18
- DBD-02; Service Water System (SW); Revision 17
- DBD-16; Emergency Diesel Generator System; Revision 17
- Drawing 302274; Starting & Service Air System Diesel Generator Building; Revision 12
- Drawing 302275; Starting Air System Diesel Generator Building, M-209 SH. 15; Revision 12
- Drawing IF-3351; 9-State – DV-Multiplex Pump; Byron Jackson Co.
- FSAR Section 10.2; Auxiliary Feedwater System (AF); UFSAR 2010
- FSAR Section 5.2; Containment Isolation System; UFSAR 2010
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- FSAR Section 7.6; Instrumentation Systems; UFSAR 2009
- FSAR Section 8.0; Introduction To The Electrical Distribution Systems; UFSAR 2010
- FSAR Section 8.8; Diesel Generator (DG) System; UFSAR 2008
- FSAR Section 9.2; Residual Heat Removal (RHR); UFSAR 2009
- IT 100 G-03; Seat Leakage Test Of Diesel Air Compressor Discharge Check Valves G-03; Revision 0; Completed January 30, 2011
- IT 100 G-03; Seat Leakage Test Of Diesel Air Compressor Discharge Check Valves G-03; Revision 0; Completed July 3, 2011
- IT 100 G-03; Seat Leakage Test Of Diesel Air Compressor Discharge Check Valves G-03; Revision 0; Completed July 24, 2011
- IT 100 G-04; Seat Leakage Test Of Diesel Air Compressor Discharge Check Valves G-04; Revision 0; Completed August 7, 2011
- Log Entries Report; January 20 To February 14, 2011
- MRE 01649202-01; 2P-10B Oil Leak; June 7, 2011
- NP 7.7.5; Maintenance Rule Monitoring; Revision 22
- Point Beach Daily Quality Summary; June 2, 2011
- Point Beach Nuclear Plant Maintenance Rule Unavailability Data Sheet; Unit 1, RH Train PB1-A; July 1 2009 – July 1, 2011
- PRA 5.9; Auxiliary Feedwater System Notebook; Revision 2
- SCR 2000-0454; Changes To ASME Classification Of Diesel Starting Air Check Valves; May 19, 2000
- SER 93-025-26; MR 91-116; Approved March 28, 1996
- Station Log; January 22 To January 27, 2011
- Station Log; January 30 To February 1, 2011
- System Health Report; Unit 1, AF; April 1 – June 30, 2011
- System Health Report; Unit 1, AF; July 1 – September 30, 2011
- System Health Report; Unit 1, RH; April 1 – June 30, 2011
- System Health Report; Unit 1, RH; July 1 – September 30, 2011
- System Health Report; Unit 2, AF; April 1 – June 30, 2011
- System Health Report; Unit 2, AF; July 1 – September 30, 2011
- System Health Report; Unit 2, RH; April 1 – June 30, 2011
- System Health Report; Unit 2, RH; July 1 – September 30, 2011
- WO Package 00362531-01; DA-00323, Check Valve Is Sticking Shut; February 5, 2009
- WO Package 00364906-01; DA-00323, Disassemble, Clean, And Inspect Check Valve; February 9, 2009

- WP 2011-037; Leak Check Of DA-323 G-03 EDG T-170C/D Start Air Rcvr Inlet Check WO 40071538-03; Reviewed June 1, 2011

### 1R13 Maintenance Risk Assessments and Emergent Work Control

- AOP-18; Electrical System Malfunction; Revision 6
- AR01693109; Diving Activities For 10/5/11 Have PRA Issues
- AR01693217; Power Availability Definition Impacts U1R33 Planned Work
- AR01693244; Shutdown Safety Definitions (NP 10.3.6) Need Updating
- AR01694093; SG OOS Impact On Shutdown Safety
- AR01694230; Westinghouse WEP-11-70 May Cause RCP Seal Repair Impact
- AR01694578; Document Misplaced For 1X-03 HV Station Transformer SDS
- AR01698297; Guarded Equipment Postings Removed And Reinstalled
- AR01700933; "Safety Monitor Real Mode Database Corrupt"
- AR01709993; 1F89-112 Circuit Switcher FIP Team
- AR01714146; Point Beach UE 11/27, Single Point Failure Issues
- EPIP 1.1; Course Of Actions; Completed November 27, 2011
- EPIP 2.1; Notifications – ERO, State And Counties, And NRC; Completed November 27, 2011
- Log Entries Report; November 27, 2011
- NE 47478; Unusual Event Due To A Loss Of Offsite Power During Switching Operations; November 27, 2011
- NP 10.3.6; Shutdown Safety Review And Safety Assessment; Revisions 35 And 39
- NPM 2011-0373; Internal Correspondence From J. Schleif, Emergency Preparedness Manager; Subject: Point Beach Unusual Event 11/27/11; December 17, 2011
- OP 1B; Reactor Startup; Revision 65
- OP 1C; Startup To Power Operation Unit 1; Revision 22
- Outage U1R33; Activity Listing
- Outage U1R33; Activity Listing; October 2, 2011; Revision 2
- Outage U1R33; Activity Listing; October 23, 2011; ; Revision 7
- Outage U1R33; Activity Listing; October 8, 2011; Revision 3
- Outage U1R33; Activity Listing; October 13, 2011; Revision 6
- PB Station Unit 2; Daily Status Report; October 20, 2011
- PBNP Shutdown Safety Assessment And Fire Condition Checklist; November 27, 2011
- PBNP Shutdown Safety Assessment And Fire Condition Checklist; November 26, 2011
- PBNP U1 Shutdown Safety Assessment And Fire Condition Checklist; October 19, 2011
- PBNP U1 Shutdown Safety Assessment And Fire Condition Checklist; October 18, 2011
- PBNP U1 Shutdown Safety Assessment And Fire Condition Checklist; October 26, 2011
- PBNP U1 Shutdown Safety Assessment And Fire Condition Checklist; November 3, 2011
- Point Beach Daily Quality Summary; October 31, 2011 item 1: AR01701435, "Guarded Equipment Magnet Missing in Control Room"
- PSH No. 710-21.6; S & C Electric Company Photo Sheet For: S&C Circuit Switcher – Mark II; Issued August 31, 1969
- Safety Monitor Unit 2; October 19, 2011 02:06
- Safety Monitor Unit 2; October 20, 2011 03:37
- Safety Monitor Unit 2; October 21, 2011 21:36
- Shutdown Risk Review Emergent Work Evaluation; October 23, 2011
- Shutdown Risk Review Emergent Work Evaluation; October 8, 2011
- Shutdown Risk Review Emergent Work Evaluation; October 9, 2011
- Temporary Change No. 055A; RMP 9046-1, Station Battery 92 Day 12 Month Surveillance Tests; September 16, 2011
- U1R33 Outage Safety Review Supporting Documentation

## 1R15 Operability Evaluations

- AR01687047; SFP Transfer Canal Leakoff Decreasing
- AR01698620; Incorrect Power Supply Wiring For 2FIC-466A & 2FIC-476A MFRV Controllers
- AR01698620; Incorrect Power Supply Wiring For 2FIC-466A & 2FIC-476A MFRV
- AR01699293; Discrepancy Noted During POD 01698620
- AR01707992; P-032B Leak Between Discharge Head And Base Plate
- AR01708195; P-207A Enters Alert On High Vibration
- AR01708526; DA-6365B Condition Based On DA-6365A Inspection Results
- POD 01698620; Incorrect Power Supply Wiring For 2FIC-466A & 2FIC-476A MFRV Controllers; Revision 1; Completed October 29, 2011
- POD 01698620; Incorrect Power Supply Wiring For 2FIC-466A & 2FIC-476A MFRV Controllers; Revision 0; Completed October 24, 2011
- Station Log; Mid Shift; October 20, 2011 And October 23 – 24, 2011
- Station Log; Mid Shift; October 25, 2011
- Station Log; Mid Shift; October 30, 2011
- Transfer Canal Daily Leakoff; May 21, 2010 To September 21, 2011

## 1R18 Plant Modifications

- FP-E-MOD-01; Modification Process Definitions; Revision 5
- FP-E-MOD-05; Modification Plant Impact; Revision 8
- WM-AA-1000; Work Activity Risk Management; Revisions 10 And 11
- FP-E-EVL-01; Engineering Evaluations; Revisions 5 And 6
- WO/Procedure No. 40108532-01/RMP 9096-3; Pre-Job Brief; October 17, 2011
- PR-AA-1002; Emergent Project; Revision 1
- Response To NRC Inspection Question No. 1; November 10, 2011
- Response To NRC Inspection Question No. 2; November 10, 2011
- Response To NRC Inspection Question No. 3; November 10, 2011
- FP-E-MOD-03; Temporary Modifications; Revision 10
- FSAR Section 9.4; Fuel Handling System (FH); UFSAR 2009 And 2010
- EC274158; 10 CFR 50.59/72.48 Pre-Screening Review; September 21, 2011
- SCR 2011-0284; Adding Temporary Reactor Vessel Head Cover To SLP-1, SLP-2, And SLP-10; October 13, 2011
- PCR 01689351; OP 4D Part 3, Draining The Reactor Cavity And Reactor Coolant System, Rev 31; September 27, 2011
- Calculation PE-R7005; Stress/Buckling analysis Of The TRPV Cover For Point Beach Units 1 And 2; Revision 0; October 3, 2011
- FSAR Section 1.4; Quality Assurance Program; UFSAR 2008
- FSAR Section 1.3; General Design Criteria; UFSAR 2009
- FSAR Section 5.1; Containment System Structure; UFSAR 2010
- FSAR Section 12.4; Written Procedures; UFSAR 2007
- FSAR Section 14.3.6; Reactor Vessel Head Drop Event; UFSAR 2010
- Spec. No. PB 737; Temporary Reactor Pressure Vessel Cover (TRPVC); Revision 3; September 8, 2011
- RMP 9096-3; Temporary Reactor Cover Preparation, Installation And Removal; Revision 0
- EN-AA-205-1002; Temporary Modifications (NAMS); Revision 0
- Drawing PE-D7001D; Point Beach Station TRPV Cover Assembly; Revision 2
- AR01693510; Rigging For New Temporary RV Cover From China
- Drawing PE-D7002D; Point Beach TRPV Storage/Transport Container Assembly; Revision 2
- FP-E-SE-03; 10 CFR 50.59 And 72.48 Processes; Revision 6



- Engineering Evaluation For EC 274158; Temporary Reactor Head Lay-Down Area; September 26, 2011
- AR01693549; Safety Concern – 66' Floor Loading Vs. MFIV Prep Work
- AR01697006; RMP 9096-3 Requires Revision

#### 1R19 Post-Maintenance Testing

- 0-SOP-SW-106; North Service Water Pump Header Isolation; Performed November 2 And November 4, 2011
- 1R33 SW Supply Header Work; Data Date October 24, 2011
- ACE 01701572-01; While Restoring 1A-06 Under WO 386783, Synchronization Scope Identified As Operating Backwards; Revisions 0 And 1
- ANSI/ANS-56.8-1994; American Nuclear Society Containment System Leakage Testing Requirements
- ANSI/ANS-56.8-2002; American Nuclear Society Containment System Leakage Testing Requirements
- AR01663599; Incorrect Bolt Found On 2-MS-201BA
- AR01691016; Return air Ductwork For #3 PW Not Intact
- AR01691777; IT-530A Administrative Limit Exceeded
- AR01692583; 1hX-11A Leaking
- AR01694217; 1hx-001a Level Tap Flange Gasket Leakage Indication
- AR01694626; 1RC-529, PRT RMUW Inlet Check Failed To Seat During ORT 42
- AR01695119; Reactor Trip Breaker Trip Force Average is High; October 11, 2011
- AR01695323; Reactor Trip Breaker, 52/DB50-RT04 Gap was Out of Spec; October 11, 2011
- AR01695323; Reactor Trip Breaker, 52/DB50-RT04, Gap Was Out Of Spec
- AR01695646; 1RC-529 Exceeds ORT 42 Leakage Limit
- AR01698377; FM Found In The RHR Heat Exchanger 1HX-11A
- AR01698663; 1HX-011A RHR HX Old Gasket Material Found Upon Removal
- AR01698784; Lack Of Planning And Focus For Major Equipment Maintenance
- AR01699108; Reface Secondary Manway Gasket Faces
- AR01699409; Unit 2 Sump A Alarm OOS, Tech Spec LCO
- AR01701544; Sync Scope Spinning When Looking At Live To Dead Buss
- AR01701546; Synchroscope Rotated When Attempting To Energize A Dead Bus
- AR01701572; Wires Improperly Relocated In Cubicle 61 Of 1A-05
- Calculation # 2005-0053; Primary Auxiliary Building GOTHIC Temperature Calculation; December 29, 2008
- CAR 10-051, 24" SW Butterfly Valve Replacements; Signed October 21, 2011
- CL 1B; Containment Barrier Checklist Unit 1; Completed March 31, 2010
- CLRT Testing Program Basis Document; Revision 12
- Condition Evaluation 01691016-01; Issue Associated With A Section Of Ductwork For Primary Auxiliary Building Ventilation System; October 16, 2011
- CR Change Request Approval; CR Identifier 01695646; October 31, 2011
- Drawing 018995; P&ID Service Water, Unit 1; Revision 77
- Drawing 02-DD-2B; Isometric Drawing Feedwater Recirc Piping Discharge To Condenser. 8"-DD-2 2SC-1A. Nozzle N-31B. Unit 2; Revision 0
- Drawing 20734-H; 30In. OD. Pipe Main Steam Isolation Check Valve
- Drawing 27065; Heating And Ventilation Auxiliary Building Area 4 Elev. 8'; Revision 10
- Drawing 27068; PAB H/V Plan Area 5 El 8 Ft; Revision 8
- EC 259978; Equivalent/Alternate Change; SW-000211, SW-02890; Revision 2
- EC 274432; MOB-212 Temp Power From 20L-23
- FSAR Section 9.5; Primary Auxiliary Building Ventilation System; UFSAR 2010

- NEI 94-01; Nuclear Energy Institute Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J; Revision 0
- ORT 42; RMUW To Containment Unit 1; Revision 22
- ORT 42; RMUW To Containment Unit 1; Revision 23; Completed November 1, 2011
- ORT 42; RMUW To Containment Unit 1; Revision 23; Completed October 10, 2011
- Point Beach TRM 4.15; Containment Leakage Rate Testing Program; Revision 1
- Repair/Replacement (R/R) Activity No. 2011-0051; SW-02890; Revision 1
- RMP 9026-3; Reactor Trip and Bypass Breaker Routine Maintenance; October 9, 2011
- RMP 9026-3; Reactor Trip And Bypass Breaker Routine Maintenance; Completed October 9, 2011
- RMP 9026-3; Reactor Trip And Bypass Breaker Routine Maintenance; Completed October 7, 2011
- Station Log; Day Shift; November 9, 2011
- Station Log; Mid Shift; October 25, 2011
- System Health Report; Unit 1, Service Water; July 1 to September 30, 2011
- VNPAB; B 3.7.14; Primary Auxiliary Building Ventilation (VNPAB) Unit 1 – Amendment No. 240; Unit 2 – Amendment No. 244
- WO 00389614-03; 1HX-011A; Ops PMT At NOP/NOT
- WO 40107155-19; WO Work Plan; October 30, 2011
- WO Package 00370131-02; AF System Multi And/Or Non-Numbered
- WO Package 00386783-01; 1A00-61 / 1A05 Bus PT Fuse Wires Landed Incorrectly
- WO Package 00388374-12; EC 9998, Install Large/Small Bore Piping/Valves; Completed May 24, 2011
- WO Package 00396409 01; 52/DB50-RT04, Reactor Trip Breaker Maintenance; October 9, 2011
- WO Package 00396409-01; 52/DB50-RT04, Reactor Trip Breaker Maintenance; October 11, 2011
- WO Package 4008781-01; Sync Scope Spinning When Looking At Live To Dead Buss
- WO Task 00383699-06; SW-2890-O Operations PMT/RTS; November 4, 2011
- WO Task 00383699-20; OSW-02890 Operations PMT Leak Check For RTS; November 4, 2011
- WO Task 40088142-08; HX-001A Ops PMT/RTS
- WO Task 40107010-08; 1 HX-001A Replace Gasket On Narrow Range Level Tap
- WP No. 25494-899-M0P-0000-02103; Scope: VNPAB / Return Air Ductwork For #3 PW Reinstall
- NRC Regulatory Guide 1.163; Performance-Based Containment Leak-Test Program; September 1995

#### 1R20 Outage Activities

- 1RMP 9096-1; Reactor Vessel Head Removal And Installation Using Biach Tensioning System; Revision 13
- ACE 01695907-01; Containment Polar Crane Main Hook And Load Block Carried Over Reactor Vessel
- ACE01649202, Assignment 02; Service History For Other Safety Related Single Stage Pumps Evaluated; Revision 0
- AR01029181; Review OE22428
- AR01196852; Sand Plug Gasket Material Questionable
- AR01282542; Cavity Leakage Following Repairs To The Seal Ring And Sandbox Covers
- AR01627413; Troubleshoot Leak In Unit 2 Re-Fueling Cavity

- AR01627413-02 Write-Up; Sand Plug (Sand Box) Cover Leakage; Revision 1; September 7, 2011
- AR01627525; Unit 2 Reactor Cavity Leakage
- AR01657712; CL 20 Identified Grey Cord On I-Beam 46' U2 Containment
- AR01666743; Perform RMP 9027
- AR01674521; U2-Containment, Additional Tendon Can(s) Leaking Grease
- AR01689230; Scheduled WO Can Not Be Completed Due To Plant Configuration
- AR01690787; SFP Rack Insert Raised (SX-46)
- AR01691380; PM Late In Grace
- AR01691472; Electrical Cable Uncovered During Paving Activity
- AR01692020; Vibration / Noise In U-2 SW Return Piping
- AR01693109; Diving Activities For 10/5/11 Have PRA Issues
- AR01693217; Power Availability Definition Impacts U1R33 Planned Work
- AR01693244; Shutdown Safety Definitions (NP 10.3.6) Need Updating
- AR01693616; Sparking From Unit 1 Polar Crane Bus Bars
- AR01694058; New RCP Lift Rig Moved Into Containment Without Revised SLP
- AR01694093; SG OOS Impact On Shutdown Safety
- AR01694230; Westinghouse WEP-11-70 May Cause RCP Seal Repair Impact
- AR01694376; Sodium Contamination From Weld Rod Filler Materials
- AR01694423; 1MS-2005 Closure Device, CL-1E Concern
- AR01694578; Document Misplaced For 1X-03 HV Station Transformer SDS
- AR01694924; 1Cont, Touch Up Liner Plate At Keyway Floor
- AR01694927; 1Cont, Remove Loose Topcoat – Keyway Reactor Room
- AR01694928; U1-Containment, Flaking Floor Coatings Near Walls
- AR01694929; 1Cont, Repair Separation Of Expansion Joint Caulk
- AR01694963; West. Analysis Doesn't Support TS 4.0 Fuel Storage W/IFBA
- AR01695011; Potential Leak From CCW Piping In Unit 1 Containment
- AR01695013; Crane Operator Not Qualified To Operate PAB Crane
- AR01695264; Work Order Inadvertently Closed
- AR01695271; Unnumbered RM Check Valve Seat Leakage, Exceeds IT 580 Limit
- AR01695397; The New U1 RCP Motor Lift Rig Was Moved Into U1C W/Out SLP
- AR01695474; 3 GPM Cavity Leak Identified During Cavity Fill
- AR01695907; SLP 1 Safe Load Path Rigging
- AR01696667; PORC Approved Rev To SLP 1 With Inadequate 50.59 Pre-Screening
- AR01696791; Debris On Bottom Nozzle Of Fuel Assembly MM03
- AR01696795; Screening For TRVHC SLP PCR 1686525 Revision
- AR01697003; FM Falls From Fuel Assembly Into Transfer Canal Near Upender
- AR01697309; ACE1695474 Assigned To Maintenance
- AR01697423; RCP Motor Lift Rig Reanalysis
- AR01697924; U1 Tendon Gallery Wall Shows Evidence Of Water Leakage
- AR01698486; Clean Efflorescence In Unit 1 Tendon Gallery
- AR01698682; Inappropriate Use Of Danger Tags Per OP-AA-101
- AR01698847; Safe Load Path (SLP) Program Trend
- AR01699306; Identified Crack In Concrete
- AR01700814; Main Generator Blower Blade (Rotating) NDE Indications
- AR01703665; NRC Question About Deferral Of WO40098798, 1P-14B Inspection
- AR01703779; Corrosion Observed On 26-Ft Floor Beam At Unit 2 Equipment Hatch
- AR01705640; Loss Of 1X-03 When Starting 1P-1A, RCP
- AR01705658; 1X-03 Tripped During RCP Start / Run
- AR01706162; Evaluate Present Setpoints Of 51N/X03
- AR01706338; Determine Capacitor Bank Influence On X-03 Neutral Current

- AR01707119; Legacy Foreign Material Found In SFP Transfer Canal
- AR01707937; Latches On Reactor Vessel Insulation Not Secure
- AR01714887; NRC Resident Containment Walkdown Questions
- AR01715821; Various Issues In Unit 1 Containment
- Calculation No. 32-5050092; Debris Generation Evaluation For Point Beach Nuclear Plant Unit 1; Revision 4
- Calculation No. 66-9093957; Point Beach Test Report For ECCS Strainer Performance Testing; Revision 2
- Calculation No. TDI-6028-02; Debris Allocations – Design Input For Test Plan Point Beach Nuclear Plant – Unit 1 & 2; Revision 0
- CAMP 111; Requirements For Refueling Shutdown; Revision 25
- Condition Evaluation For AR01627413; Troubleshoot Leak In Unit 2 Re-Fueling Cavity
- CWPH – 0P-032B SW Pump; 0P-032B – M1X Motor Outboard Cross Flow; Trend Display Of Overall Value; October 29, 2002 To June 26, 2013
- CWPH – 0P-032B SW Pump; 0P-032B – M1Y Motor Outboard Parallel Flow; Trend Display Of Overall Value; October 29, 2002 To December 17, 2012
- Drawing 018995; P&ID Service Water PBNP Unit 1; Revision 77
- Drawing 105928; P&ID S.G. Blowdown System PBNP Unit 1; Revision 30
- EC 13122; U1R31 Containment Coating Assessment Point Beach Nuclear Plant; February 8, 2010
- EC-274673; Engineering Evaluation; Storage Of Temporary Reactor Pressure Vessel Cover (TRPVC) Inside Unit 1 Containment; November 22, 2011
- FSAR Section 12.5; Records; UFSAR 2001
- FSAR Section 14.3.6; Reactor Vessel Head Drop Event; UFSAR 2010
- FSAR Section 3.2; Reactor Design; UFSAR 2009
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- FSAR Section 7.5; Operating Control Stations; UFSAR 2010
- FSAR Section 7.6; Instrumentation Systems; UFSAR 2009
- FSAR Section 9.4; Fuel Handling System (FH); UFSAR 2009
- Letter From NRC To L. Meyer, Site Vice President, NextEra Energy; Subject: Point Beach Nuclear Plant (PBNP), Units 1 And 2 – Issuance Of License Amendments Regarding Use Of Alternate Source Term (TAC Nos. ME0219 And ME0220); April 14, 2011
- Log Entries Report; March 2 To October 12, 2011
- NEI 08-05; Industry Initiative On Control Of Heavy Loads; Revision 0; July 2008
- NP 10.3.6; Shutdown Safety Review And Safety Assessment; Revision 35
- NRC 2007-0104; Correspondence From J. McCarthy, Site VP To NRC; Subject: Event Notification 42129, Resolution Of Nonconformances Associated With ECCS Long-Term Cooling Regulatory Commitment Change; December 31, 2007
- NRC 2010-0075; 10 CFR 50.90; License Amendment Request 265: Revision To The Reactor Vessel Head Drop Methodology; June 1, 2010
- OI 14; Steam Generator Blowdown Operation; Revision 38
- OP 1B; Reactor Startup; Revision 65
- OP 1C; Startup To Power Operation Unit 1; Revision 22
- OP 3A; Power Operation To Hot Standby Unit 1; Revision 5
- OP 3B; Reactor Shutdown; Revisions 40 And 42
- OP 3C; Hot Standby To Cold Shutdown; Revision 111
- OP 7A; Placing Residual Heat Removal System In Operation; Revision 47
- Outage U1R33; Activity Listing; October 2, 2011; Revision 2
- Outage U1R33; Activity Listing; October 23, 2011; ; Revision 7
- Outage U1R33; Activity Listing; October 8, 2011; Revision 3
- Outage U1R33; Revision 3; October 8, 2011

- PBNP 10 CFR 50.59/72.48 Pre-Screening Review; Cancel TRM 3.9.4, Reactor Vessel Head Lift Per AR01657535; Completed June 14, 2011
- PCL 3A; Normal Power To Low Power Operation Unit 1; Revision 10
- Photograph; Potential Cavity Leakage Sources; Sandbox Cover (4); October 12, 2011 08:58
- Point Beach Nuclear Plant U1R33 Partial Turnovers Book
- Point Beach Safe Load Path Program Trend; November 23, 2011
- SCR 2011-0316; Storage Of Temporary Reactor Pressure Vessel Cover (TRPVC) Inside Unit 1 Containment; November 26, 2011
- SE 97-090; Capping Of Leak-Off Lines Of 1/2RH-700, 1/2RH-701 And 1/2RH-720; June 6, 1997
- Shutdown Risk Review Emergent Work Evaluation; October 23, 2011
- Shutdown Risk Review Emergent Work Evaluation; October 8, 2011
- Shutdown Risk Review Emergent Work Evaluation; October 9, 2011
- Station Log; Mid Shift; October 12, 2011
- Temporary Change No. 055A; RMP 9046-1, Station Battery 92 Day 12 Month Surveillance Tests; September 16, 2011
- U1R33 Outage Safety Review Supporting Documentation
- Unit 2 RH Pump Runtime Hours; April 26, 2010 To April 11, 2011
- WO Package 00394041 01; Inspection Of Unoccupied Areas; October 21, 2011
- WR94034716; 1PPG AC 0152N-04 / CC Piping RCP Lower Oil Pot Potential Leak
- WR94038633; Various Equipment Inside Unit 1 Containment
- NUREG-1021; Operator Licensing Examination Standards For Power Reactors; Revision 9, Supplement 1
- NRC RIS 2007-29; Clarified Guidance For Licensed Operator Watch-Standing Proficiency; December 27, 2007
- NUREG/CR-6838; Technical Basis For Regulatory Guidance For Assessing Exemption Requests From The Nuclear Power Plant Licensed Operator Staffing Requirements Specified In 10 CFR 50.54(m); Published February 2004

### 1R22 Surveillance Testing

- ANSI/ANS-56.8-1994; American Nuclear Society Containment System Leakage Testing Requirements
- ANSI/ANS-56.8-2002; American Nuclear Society Containment System Leakage Testing Requirements
- AR01669120; 2SI-850A Peak Pressure Not Achieved During First Test
- AR01691777; IT-530A Administrative Limit Exceeded
- AR01694626; 1RC-529, PRT RMUW Inlet Check Failed To Seat During ORT 42
- AR01695646; 1RC-529 Exceeds ORT 42 Leakage Limit
- CL 1B; Containment Barrier Checklist Unit 1; Completed March 31, 2010
- CLRT Testing Program Basis Document; Revision 12
- CR Change Request Approval; CR Identifier 01695646; October 31, 2011
- IT 45 Train A; Safety Injection Valves Train A Unit 2; Revision 2; Completed October 13, 2011
- IT 45 Train B; Safety Injection Valves Train B Unit 2; Revision 2; Completed October 7, 2011
- NEI 94-01; Nuclear Energy Institute Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J; Revision 0
- NRC Regulatory Guide 1.163; Performance-Based Containment Leak-Test Program; September 1995
- ORT 42; RMUW To Containment Unit 1; Revision 22
- ORT 42; RMUW To Containment Unit 1; Revision 23; Completed November 1, 2011
- ORT 42; RMUW To Containment Unit 1; Revision 23; Completed October 10, 2011

- Point Beach TRM 4.15; Containment Leakage Rate Testing Program; Revision 1
- Procedure Record And Field Copy Tracking; IT 45 Train A, Unit 2; Completed July 14, 2011

#### 1EP4 Emergency Action Level and Emergency Plan Changes

- 1EPIP 10.2; Core Damage Estimation Unit 1; Revision 0
- 2EPIP 10.2; Core Damage Estimation Unit 2; Revisions 0 And 1
- EP Appendix B; Emergency Classification; Revision 25
- EPIP 1.1; Course Of Actions; Revisions 58, 59, 60, And 61
- EPIP 1.2.1; Emergency Action Level Technical Basis; Revisions 6 And 7
- EPIP 1.2; Emergency Classification; Revisions 49 And 50
- EPIP 1.3; Dose Assessment And Protective Action Recommendations; Revisions 39 And 40
- EPIP 2.1; Notifications – ERO, State And Counties, And NRC; Revisions 43 And 44
- EPIP 4.1; Technical Support Center (TSC) Activation And Evacuation; Revisions 44 And 45
- EPIP 6.1; Assembly, Accountability, And Evacuation Of Personnel; Revisions 30 And 31
- EPIP 8.4.1; Post-Accident Sampling And Analysis Of Potentially High Activity Reactor Coolant; Revision 21
- EPIP 8.4.2; Post-Accident Sampling Of Containment Atmosphere; Revision 14
- FP-R-EP-02; 10 CFR 50.54(q) Review Process; Revision 6

#### 2RS3 In-Plant Airborne Radioactivity Control and Mitigation

- AR01183402; OSC Personnel Who Wear Corrective Lenses Do Not Have Inserts Available For Use With Respiratory Equipment During Reentry (ERO Duties)
- AR01697699; Use Of HEPA Ventilation Equipment
- Control Room F-16 Filter Testing Results; Dated January 2011
- Filter Testing Results; Dated January 2011
- HP 2.5; Radiation Work Permit And ALARA Planning; Revision 36
- HPIP 11.50; Filter Testing; Revision 20
- HPIP 11.52; HEPA (High Efficiency Particulate Air) And Charcoal Filter Administrative Control; Revision 03
- HPIP 11.54; Control Room F-16 Filter Testing; Revision 16
- HPIP 4.51.1; Maintenance, Storage And Inspection Of Respiratory Equipment; Revision 16
- HPIP 4.51.4; Scott Self-Contained Breathing Apparatus; Revision 10
- HPIP 4.56; Testing Supplied Air For Air-Line Respiratory Equipment; Revision 23
- OI 89; Baron II High Pressure Breathing Air Fill System; Revision 03
- PC 68; Biweekly Operation And Check Of The Baron II High Pressure Breathing Air System; Revision 09
- PC 75 Part 1; Monthly And Turnaround Maintenance For The Scott 4.5 Self-Contained Breathing Apparatus; Revision 21
- RDW 14.2.1; Leak Testing Portable HEPA Filters And Vacuum Cleaners; Revision 02
- RDW 14.2.2; Use Of HEPA Ventilation Equipment; Revision 00
- RDW 14.2; Use Of Vacuum Cleaners And HEPA Units In Radiologically Controlled Areas; Revision 09
- RP-AA-104-1000; ALARA Implementing Procedure; Revision 02
- Scott Respirators Surveillance Records; Various Dates 2009
- UFSAR 9.5; Primary Auxiliary Building Ventilation System; Dated 2010
- UFSAR 9.8; Control Room Ventilation System; Dated 2010

## 2RS4 Occupational Dose Assessment

- AR01350558; Quarterly TLD Total High Versus DRD
- AR01357951; Missing Area TLDs
- AR01391198; Source Container Handled Momentarily Without Dosimetry
- Calibration Of The Canberra Fastscan WBC System At The Point Beach Nuclear Plant; January 26, 2011
- Declared Pregnant Worker; Selected Records; Various Dates 2011
- HP 1.1; Personnel Dose Determination And Reporting; Revision 11
- HPIP 1.50; Exposure (Spike) Of TLD Devices For Quality Control; Revision 12
- HPIP 1.51; SDD/PDD Review; Revision 10
- HPIP 1.59; Dosimetry Irregularities; Revision 15
- HPIP 1.60; Calculating Shallow And Deep Dose Rates Due To Skin Contamination; Revision 12
- HPIP 1.62; Dosimetry In-Processing; Revision 22
- HPIP 1.63; Handling Instructions For Vendor TLD Badges And Results; Revision 14
- HPIP 1.65; Personnel Neutron Exposure Monitoring; Revision 19
- HPIP 1.68; Calculation Of Committed Dose Equivalent; Revision 05
- National Voluntary Laboratory Accreditation Program (NVLAP); July 1, 2011 Through June 30, 2012
- Personnel Contamination Event Reports; Selected Records; Various Dates 2010 And 2011
- Point Beach Nuclear Plant Quarterly EPD Versus TLD Comparison; Quarterly Reports For 2009 And 2010
- RP-AA-101-1002; Dosimetry Data Processes For Sentinel Software; Revision 02
- RP-AA-101-2004; Method For Monitoring And Assigning Effective Dose Equivalent (EDE) For High Dose Gradient Work; Revision 02
- Whole Body Count Evaluation; Selected Records; Various Dates 2011

## 2RS6 Radioactive Gaseous And Liquid Effluent Treatment

- 11-00001L; Liquid Waste Discharge Permit; January 1, 2011
- 11-00004G; Gaseous Waste Discharge Permit; January 2011
- 2009 Annual Monitoring Report; April 30, 2010
- 2010 Annual Monitoring Report; April 29, 2011
- AR01345053; P-106 Inspection Of Steel Well Castings For Site Groundwater Wells
- AR01386467; Potential Trend In Frozen Groundwater Well Sample Points
- AR01389379; CS-137 Found In U1 Subsurface Drainage System Silt
- AR01659879; Transfer Canal Helium Leak Check Needs To Be Re-Scheduled
- CAMP 031; Preparation Of Batch Liquid And Gaseous Effluent Permits Using RETSCODE Software; Revision 10
- Offsite Dose Calculation Manual (ODCM); Revision 18
- OI 140B; Standard Radioactive Batch Liquid Release Waste Distillate Tanks; Revision 02
- OI 140C; Standard Radioactive Batch Liquid Release Monitor Tanks; Revision 02
- PBN-09-009; Point Beach Nuclear Assurance Report; April 6, 2009
- PBN-10-031; Point Beach Nuclear Assurance Report; October 25, 2010
- RAM 5.1; Radioactive Airborne Effluent Releases; Revision 10
- System Health Report; Radiation Monitoring System; June 2011

## 2RS8 Radioactive Solid Waste Processing And Radioactive Material Handling, Storage, And Transportation

- AR01343106; Attempt To Procure Isolok Sampler For Resin Discharges
- AR01370884; Inappropriate Storage Of Radioactive Material
- AR01677276; Unmonitored HRA Created On -19 During Resin Dewatering
- AR01680447; CS-137 Radioactive Material Found Outside The RCA
- NA-AA-202-1000; Audit Topic Selection And Scheduling; Revision 02
- PBN-10-017; Point Beach Nuclear Assurance Report; July 1, 2010
- Process Control Program (PCP); Revision 05
- Radioactive Material Personnel Qualification And Training Records; Selected Records; Various Dates 2011
- Radioactive Material Shipment Number 10-043; Water Purification Resin Liner; December 2, 2010
- Radioactive Material Shipment Number 11-0047; ALPS Resin Liner; September 13, 2011
- Radioactive Material Shipment Number 11-0049; Primary Resin Composite; September 22, 2011
- Radioactive Material Shipment Number 11-0051; Radioactive DAW, Metals, And Asbestos; October 5, 2011
- RDW 18.1.1; 10 CFR 61 Sampling Program; Revision 04
- RP-AA-108-1002; Shipment Of Radioactive Materials; Revision 00
- RP-AA-108-1003; Radioactive Materials Surveys For Shipment; Revision 00
- RP-AA-108-1004; Packaging Radioactive Materials For Shipment; Revision 00
- UFSAR 11.1; Liquid Waste Management System; 2009
- UFSAR 11.3; Solid Waste Management System; 2008

## 40A1 Performance Indicator Verification

- AR01639595; Tacky Substance Prevents Contactor From Making Up
- AR01643652; M-1-3-61-S18, Fire Barrier Penetration/HELB Barrier
- AR01643687; V/V Converter Found Failed During Calibration
- AR01645462; TC-06637 Out Of Spec.
- AR01648858; Unexpected Conditions Found At Penetration
- AR01649694; CR Emergency Filtration And Fire Barrier, Past Operability
- AR01663181; Perform Testing To Support Past Operability Evaluation
- AR01670172; Challenge To Shift Staffing Due To Expired Respirator Quals
- AR01690886; Door 191 Tied Off To Service Air Piping
- AR01693038; Door 140 Was Found Unlatched
- AR01694942; Large Amount Of Combustible Material Found In Exclusion Zone
- LER 266/2010-001-01; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values
- LER 266/2010-004-00; Improper Controls For Breach Of HELB Barrier
- LER 301/2010-003-00; Technical Specification Required Shutdown
- LER 301/2011-002-00; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values
- LER 301/2011-003-00; Condition Prohibited By Technical Specification 3.8.2, AC Sources – Shutdown
- NP 8.4.17; PBNP Flooding Barrier Control; Revision 14
- RMP 9011-1; Safe Shutdown Fire Door Inspections; Revision 14
- RMP 9011-2; Industrial Fire Door, HELB Door And Seismic 2/1 Door Inspections; Revision 8



#### 4OA2 Identification and Resolution of Problems

- ACE01609804; Unexpected Control Room Alarms On January 18, 2011; Revision 1
- AR01364161; Operator Burden – Potential Damage Limit Switches
- AR01371471; Long Term Equipment Issue, Ops Burden
- AR01371472; Long Term TSA, Operations Burden Committee
- AR01371473; WO Cancelled With No Notes As To Why, Ops Burden Comm
- AR01373847; Ops Burden Slow To Correct
- AR01374875; Control Room Staff Unnecessarily Burdened
- AR01379401; Ops Burden Due Date Moved VNPAB-3266
- AR01379406; No Due Date On Ops Burden, FFP U2 BD LG-2095
- AR01379407; Prepare Repair Work Packages For SG Alloy 600 Locations
- AR01381199; Operator Burden; Unexpected U1 Water Box Alarms
- AR01390284; Summer Readiness Operator Burden Rescheduled
- AR01393130; Site Is Insensitive To Feed Regulating Valve Issues
- AR01613789; NRC Follow Up To Comp Actions During Loss Of 1Y-114 Inst PWR
- AR01614417; Impacts Of ERO Requirements When RMS Monitors OOS
- AR01629387; 2SC-00955; Actuator Air Leak
- AR01636791; Air Leak From Bottom Side Of Diaphragm At Stem On 2FD-02642A
- AR01650559; Potential Trend On 2A52-74 Dropped Flag
- AR01653600; Excess Air Leakage 2AF-4074B Actuator
- AR01666691; RE-235, Control Room Noble Gas Monitor Alert Alarms
- AR01670766; RE-00224 Detector Pair Requires Repair
- AR01671251; Panalarm At SBCC Did Not Process High Alarm During Test
- AR01671744; 2RE-102 Unit 1 Containment Low Range Monitor Alert
- AR01672279; The High Voltage Cable For The Detector Is Causing Low Count
- AR01674368; Rad Monitor RE-235 Failed High
- AR01674371; FS-04396 For RE-220 Found Degraded And Had To Be Replaced
- AR01675592; Valve Stuck With Now Flow Indicated
- AR01676103; 1RE-232, B Steam Line Release Monitor Failed Low Counts
- AR01676218; RE-317 Causing Multiple Alert Alarms On PPCS
- AR01677211; Received Unexpected PPCS Alarm: RE-325 Alert
- AR01677349; Troubleshoot 1RE-232, New detector But No Counts
- AR01677637; Unexpected 1 RE-136 High Alarm
- AR01677916; 1RE-136, Sample Room High Range Monitor, Detector Failed
- AR01681987; Sping-21 Alarmed In Fail External & Needed Filter Change
- AR01683809; 1RE-136 Sample Room Detector Failed
- AR01685341; Received Several Nuisance Alarms From 1RE-217 CC Alert
- AR01686344; Adverse Trend QC Hold Points Being Bypassed
- AR01686975; Install A Duplex Filter In Front Of Unit 2 FI-2888
- AR01687363; Received Unexpected PPCS Alarm: RE-214 Alert
- AR01689169; RE-214 Fails High
- AR01690254; Chemistry Potential Trend In Component Mispositioning
- AR01691965; Scaffolding Needed Around 1LT-447 & 1LT-447A
- AR01692694; 1-MS-02074 Air Operator Has Air Leaks
- AR01693078; 1 WL-01721; Close Stroke Time Trend; October 5, 2011
- AR01693766; 1FD-2642A-O Fails Drop Test
- AR01693974; 1RE-307 Failed Low
- AR01694102; RE-214, PAB Exhaust Ventilation Gas Monitor Alert
- AR01694164; Stroke Time Change of 1AF-4073A; October 7, 2011
- AR01694215; Air Leak Found On 1FD-2521A-O And Stem Wear

- AR01694421; 1SI-846 Has A Diaphragm Leak Along With Packing Issue
- AR01694549; Unexpected PPCS RE-325 Alert
- AR01695307; Unexpected Unit 1 CVI
- AR01695317; Temporary Hard Barriers For Equipment Protection
- AR01695505; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695507; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695509; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695511; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695512; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695514; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695516; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695522; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695524; Unexpected Unit 1 Sump "A" Level High Alarm
- AR01695526; Sump "A" Alarms Have Become An Operator Burden; October 12, 2011
- AR01696514; Increased Sump A Leakage from the Refueling Cavity Seals; October 14, 2011
- AR01696669; Outage Scaffold Review Summary
- AR01697239; The BCM-SRM Power Supply Needs Replacing
- AR01697253; Removed Old Detector, Needs Bench Repair (I&C)
- AR01698796; Trend – Cable Damage on 1X04 Project; October 21, 2011
- AR01699089; 1CC-17 AOV Diaphragm Leaks When Open; October 22, 2011
- AR01699105; Valve Actuator Cover has Air Stream Blowing Past Gasket; October 22, 2011
- AR01699233; Leakage Out Of Air Operator
- AR01699233; Leakage Out of Air Operator; October 23, 2011
- AR01699665; 1CC-761A Diaphragm Leak; October 24, 2011
- AR01700139; 1MS-02055-O; Actuator Has An Air Leak
- AR01704069; During AOV Testing on 1SC-951, Found 9 psi/min Air Leak; November 7, 2011
- AR01704197; Large Air Leak Found During AOV Diagnostic PM On MS-2083
- AR01708494; Leak from Diaphragm on 2GS-15; November 19, 2011
- AR01711107; 1GS-23 Needs Diaphragm Replacement; November 30, 2011
- AR01711778; Potential Trend – AOV Diaphragm Leaks; December 2, 2011
- CAP 1613789; Review Of Classification Capability During 1XY-114 Loss
- CE 01 For AR01614417; Issues Identified During Follow Up To Loss Of Instrument Bus Y-114
- CMP 2.5.2.1; Setup Parameters For Category 1 Air Operated Valves; Revision 9
- CMP 2.5.2.2; Setup Parameters For Category 2 Air Operated Valves; Revision 5
- EP 7.0; Emergency Facilities And Equipment; Revision 54
- EP Appendix M; Matrix For Emergency Preparedness Equipment; Revision 4
- EPMP 9.0; Equipment Important To Emergency Preparedness; Revision 0
- FG-PA-CTC-01; CAP Trend Code Manual; Revisions 9 And 10
- FP-PA-ARP-01; Action Request Process; Revision 33
- FP-PA-ARP-01; CAP Action Request Process; Revision 24
- MI 32.9; Scaffolding Program; Revision 32
- NAMS Action Tracking Cause Codes (Failure Modes)
- NAMS Action Tracking Event Codes
- NP 1.9.6; Plant Cleanliness And Storage; Revision 36
- NP 2.1.4; Operator Burdens; Revision 13
- OP-AA-108; Oversight and Control of Operator Burdens; Revision 0
- Open Trend CRs As Of October 28, 2011
- Open Trends CRs; October 25, 2011
- Operator Workarounds/Burdens; May 2011
- Ops Concerns List; June 29, 2011
- PI-AA-01; Corrective Action Program And Condition Reporting; Revision 3

- PI-AA-204; Condition Identification And Screening Process; Revision 10
- PI-AA-205; Condition Evaluation And Corrective Action; Revisions 10 And 13
- PI-AA-207; Trend Coding and Analysis; Revisions 1 And 2
- Point Beach Daily Quality Summary; May 5, 2011
- Point Beach Operational Focus monthly graph; June 8, 2011
- Point Beach Operational Focus monthly graph; November 28, 2011
- Program Health Report; July 1 To September 30, 2011
- RMP 9309-2; Main Steam Isolation Valve Operator Overhaul; Revision 14
- RMP 9344; Atmospheric Steam Dump Valve Maintenance; Revision 14
- RMP 9361-2; Grinnell Model 3225 And 3250 With Yoke Air Operated Diaphragm Valve Maintenance; Revision 7
- Top Five Operator Focus Issues; November 15, 2011
- Top Five Operator Focus Issues; September 13, 2011
- WO 00164511-01; 1MS-02017-O Disassemble/Inspect/Maintain Valve Operator
- WO 00165597-01; Overhaul Valve and Actuator

#### 4OA3 Follow-Up of Events and Notices of Enforcement Discretion

- AOP-18; Electrical System Malfunction; Revision 6
- AR01624317; U2 Entered LCO 3.0.3 Due To ECCS Trains OOS
- AR01709993; 1F89-112 Circuit Switcher FIP Team
- AR01714146; Point Beach UE 11/27, Single Point Failure Issues
- EPIP 1.1; Course Of Actions; Completed November 27, 2011
- EPIP 2.1; Notifications – ERO, State And Counties, And NRC; Completed November 27, 2011
- LER 2011-001-00; Both Trains Of SI Inoperable; April 22, 2011
- Log Entries Report; November 27, 2011
- NE 47478; Unusual Event Due To A Loss Of Offsite Power During Switching Operations; November 27, 2011
- NPM 2011-0373; Internal Correspondence From J. Schleif, Emergency Preparedness Manager; Subject: Point Beach Unusual Event 11/27/11; December 17, 2011
- NPM 2011-0373; Point Beach Unusual Event [evaluation] File memo; December 17, 2011
- PBNP Shutdown Safety Assessment And Fire Condition Checklist; November 27, 2011
- PBNP Shutdown Safety Assessment And Fire Condition Checklist; November 26, 2011
- PSH No. 710-21.6; S & C Electric Company Photo Sheet For: S&C Circuit Switcher – Mark II; Issued August 31, 1969
- Root Cause Analysis For AR01624317; 2P-15B Bearing Oiler Bump; April 4, 2011

#### 4OA5 FAC Inspection in Support of Extended Power Uprate (EPU)(71004)

- 2203.100-01; PBNP FAC Susceptibility Analysis; Revision 0
- FP-PE-FAC-01; Flow Accelerated Corrosion Inspection Program; Revision 6
- NDE-104; Ultrasonic A-Scan Thickness Measurement Utilizing Panametrics DL Plus Series Thickness Gauges; Revision 22
- NSAC-202L-R3; Recommendations For An Effective Flow-Accelerated Corrosion Program; May 2006
- SEM 7.11.2; ISI Datasheet Review And Indication Evaluation Guideline; Revision 11
- SEM 7.8.3; Flow Accelerated Corrosion Program Basis Document; Revision 11
- U1R33 Refueling Outage Flow-Accelerated Corrosion (FAC) Outage Report

## LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
ALARA	As-Low-As-Is-Reasonably-Achievable
AR	Action Request
ASME	American Society of Mechanical Engineers
AUT	Automated Ultrasonic Test
BA	Boric Acid
BACC	Boric Acid Corrosion Control
BAE	Boric Acid Evaluation
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EAL	Emergency Action Level
ECCS	Emergency Core Cooling System
ED	Electronic Dosimeter
EDG	Emergency Diesel Generator
EP	Emergency Plan
EPRI	Electric Power Research Institute
EPU	Extended Power Uprate
ET	Eddy Current Testing
FAC	Flow Accelerated Corrosion
FSAR	Final Safety Analysis Report
FW	Feedwater
IDR	Indication Disposition Report
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
ISI	Inservice Inspection
LER	Licensee Event Report
LORT	Licensed Operator Requalification Training
MDAFW	Motor-Driven Auxiliary Feedwater
MFRV	Main Feedwater Regulating Valve
MS	Mitigating System
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
ODCM	Offsite Dose Calculation Manual
OSP	Outage Safety Plan
OWA	Operator Workaround
PARS	Publicly Available Records System
PCP	Process Control Program
PI	Performance Indicator
PMT	Post-Maintenance Testing

RC	Reactor Coolant
RCA	Radiologically Controlled Area
RCS	Reactor Coolant System
RDC	Rod Drive Control
RFO	Refueling Outage
RG	Regulatory Guide
RHR	Residual Heat Removal
RPV	Reactor Pressure Vessel
RPVUH	Reactor Pressure Vessel Upper Head
SDP	Significance Determination Process
SFP	Spent Fuel Pool
SG	Steam Generator
SI	Safety Injection
SR	Safety-Related
SSC	Structure, System, and(or) Component
SW	Service Water
TDAFW	Turbine-Driven Auxiliary Feedwater
TLD	Thermoluminescent Dosimeter
TS	Technical Specification
URI	Unresolved Item
UT	Ultrasonic Testing/Examination
VT	Visual Test/Examination
WO	Work Order

L. Meyer

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Sincerely,

**/RA/**

Michael A. Kunowski, Branch Chief  
Branch 5  
Division of Reactor Projects

Docket Nos. 50-266; 50-301  
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SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 -  
NRC INTEGRATED INSPECTION REPORT 05000266/2011005;  
05000301/2011005

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