



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

August 3, 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 05000266/2012003 AND  
05000301/2012003

Dear Mr. Meyer:

On June 30, 2012, 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 inspection findings, which were discussed on June 26, 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.

Two NRC-identified findings and one self-revealing finding of very low safety significance were identified during this inspection.

These findings were determined to involve violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs), consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the subject or severity of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Point Beach Nuclear Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding 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 System (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.: 05000266; 05000301

License Nos.: DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2012003 and 05000301/2012003;  
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No.: 05000266/2012003; 05000301/2012003

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: Two Rivers, WI

Dates: April 1, 2012, through June 30, 2012

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Enclosure

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## SUMMARY OF FINDINGS

IR 05000266/2012003, 05000301/2012003; 04/01/2012 – 06/30/2012; Point Beach Nuclear Plant, Units 1 and 2; Post-Maintenance Testing; In-Plant Airborne Radioactivity Control and Mitigation; and Follow-Up of Events and Notices of Enforcement Discretion.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green NRC-identified findings and one Green self-revealing finding were identified during this inspection. The findings were considered non-cited violations (NCVs) 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: Initiating Events**

- Green. A finding of very low safety significance and associated non-cited violation of 10 CFR 50.65(a)(3) was self-revealed when an unplanned reactor trip of Unit 2 occurred on June 13, 2011, as a result of the failure of a source range detector during low power physics testing. Specifically, the licensee failed to adequately evaluate operating experience and incorporate it into its preventive maintenance program to periodically replace aging electrical subcomponents in nuclear instrumentation systems and a subsequent age-related failure resulted in initiating a plant transient. The licensee entered this issue into the corrective action program, and corrective actions to prevent recurrence were initiated.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance. Specifically, the availability and reliability of the nuclear instruments was degraded to a point where an instrument failure caused a reactor trip, an event that adversely impacted the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding has a cross-cutting aspect in the area of corrective action program, evaluation/extent of condition. Specifically, the licensee failed to thoroughly evaluate related nuclear instrument failure rates so that the resolutions addressed the causes and extent of conditions for age-related failures of electrical subcomponents (P.1(c)). (Section 4OA3.4)

#### **Cornerstone: Mitigating Systems**

- Green. The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to establish routine testing procedure that demonstrated room temperatures would be maintained. Specifically, on March 29, 2012, the inspectors identified that the licensee failed to establish routine testing procedure that demonstrated

the air flows for emergency diesel generators G-01 and G-02 ventilation systems would perform adequately to ensure that the room temperatures would be maintained. The licensee entered this issue into its corrective action program, and corrective actions included performance of air flow measurements on the fan units, creation of a preventive maintenance requirement for taking periodic flow measurements, and assessment of the identified issue through a condition evaluation.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," dated December 24, 2009. The inspectors determined that this finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute for design control. Specifically, it adversely affected the Mitigating System Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, the licensee did not use conservative assumptions regarding the verification of the proper air flow through the safety-related gravity dampers in the emergency diesel generators G-01 and G-02 rooms (H.1(b)). (Section 1R19)

#### **Cornerstone: Occupational Radiation Safety**

- Green. The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 20.1701. Specifically, the inspectors identified deficiencies, as of January 19, 2012, in the licensee's testing program for assuring that the technical support center (TSC) ventilation system was in compliance with the system's design basis. The licensee's TSC high efficiency particulate air and charcoal filter efficiencies were not tested to the design criteria. The licensee documented this issue in its corrective action program and the corrective actions included revising applicable procedures. In addition, the licensee performed a calculation to show that the TSC ventilation system was capable of maintaining a radiological habitability of less than 5 Rem total effective dose equivalent for the duration of the design base accidents. The calculation was based on actual historical filter testing efficiencies.

The finding was more than minor because it was associated with the program and process attribute of exposure control of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure radiation and radioactive material. Specifically, inappropriately testing installed emergency ventilation system filters designed to mitigate workers' radiation exposures did not validate that the TSC ventilation system was capable of performing its intended design function of minimizing worker exposures to airborne radioactive materials. The finding was assessed using the occupational radiation safety significance determination process and was determined to be of very low safety significance (Green) because it was not an as-low-as-is-reasonable-achievable planning issue, there was no overexposure or potential for overexposure, and the licensee's ability to assess dose was not compromised. The inspectors determined that the most significant contributor to the finding was a cross-cutting aspect in the area of human performance, resources. Specifically, the licensee failed to ensure that the TSC ventilation filter testing protocol assured compliance to the system's designed margins (H.2(a)). (Section 2RS3)

**B. Licensee-Identified Violations**

No violations were identified.

## **REPORT DETAILS**

### **Summary of Plant Status**

Unit 1 was at 100 percent power throughout the entire inspection period with the exception of brief downpowers to conduct planned maintenance and surveillance activities.

Unit 2 was at 100 percent power for the majority of the period with the exception of two planned downpowers and one forced outage. Unit 2 was downpowered on April 20, 2012, to approximately 15 percent power for switchyard work and on June 18, 2012, for routine auxiliary feedwater system testing. On June 27, 2012, the unit was tripped due to a turbine control system malfunction and remained shut down until the end of the inspection period.

### **1. REACTOR SAFETY**

#### **Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity**

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

##### **.1 Summer Seasonal Readiness Preparations**

##### **a. Inspection Scope**

The inspectors performed a review of the licensee's preparations for summer weather for selected systems, including conditions that could lead to an extended drought. The inspectors' reviews focused specifically on the following plant systems:

- service water (SW);
- component cooling water (CCW); and
- primary auxiliary building (PAB) ventilation.

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. 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.

This inspection constituted one seasonal adverse weather sample as defined in Inspection Procedure (IP) 71111.01-05.

##### **b. Findings**

No findings were identified.



.2 Readiness for Impending Adverse Weather Condition – Solar Magnetic Disturbances

a. Inspection Scope

Since solar magnetic disturbances were forecast in the vicinity of the facility for April 23, 2012, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On April 23, 2012, the inspectors walked down the offsite power system, in addition to the licensee's emergency alternating current (AC) power systems, because their safety-related (SR) functions could be affected or required as a result of solar magnetic flares. The inspectors evaluated the licensee's preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. Additionally, inspection activities included a review of the FSAR, the licensee's adverse weather procedures, daily monitoring of the off-normal environmental conditions, and that operator actions specified by plant-specific procedures were appropriate to ensure operability of the facility's systems. The inspectors also reviewed a sample of CAP items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in IP 71111.01-05.

b. Findings

No findings were identified.

.3 Readiness for Impending Adverse Weather Condition – Severe Thunderstorm Watch

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for June 17, 2012, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. The inspectors reviewed the actions taken by the licensee in response to the adverse weather condition while the associated meteorological tower was out of service. The inspectors reviewed the potential impact of the adverse weather conditions on SR equipment, in addition to the licensee's emergency AC power systems. The inspectors evaluated the licensee's preparations against the site's procedures and determined that the licensee's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the FSAR and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. The inspectors also reviewed a sample of CAP items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in 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 system:

- Unit 2 safety injection (SI) system B, during surveillance testing on the opposite train; and
- Unit 1 turbine-driven auxiliary feedwater (TDAFW) pump after returned to service following maintenance.

The inspectors selected this system based on its 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 system 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 system 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 two partial system walkdown samples 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 (FP) walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- fire zone 187 (monitor tank room);
- fire zone 596 (Unit 2 façade);
- fire zone 151 (SI pump room); and
- fire zone 318 (cable spreading room).

The inspectors reviewed areas to assess if the licensee had implemented an FP program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive FP features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable FP 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 CAP. Documents reviewed are listed in the Attachment to this report.

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

#### b. Findings

No findings were identified.

## 1R06 Flooding (71111.06)

### .1 Internal Flooding

#### a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its SR equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the FSAR, engineering calculations, and abnormal operating procedures (AOPs) to identify licensee commitments. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or

misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant area to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments. Documents reviewed are listed in the Attachment to this report.

- residual heat removal (RHR) rooms.

This inspection constituted one internal flooding sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On May 21, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification examinations 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 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 regualification program simulator sample as defined in IP 71111.11.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On April 20 and 21, 2012, the inspectors observed activities in the control room during the high risk activity of a Unit 2 downpower to 15 percent to secure one train of main feedwater (FW). This was an activity that required heightened awareness or was related to increased risk. 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 procedures;
- control board manipulations; and
- oversight and direction from supervisors.

The performance in these areas was compared to pre-established operator action expectations, procedural compliance, and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk 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 system:

- TDAFW system.

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 one 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 SR equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- risk management of 345-kilovolt (kV) output breaker hotspot with increasing outside air temperatures;
- risk management with CCW heat exchanger C inoperable but available;
- risk management with emergency diesel generators (EDGs) G-01 and G-02 inoperable week of April 26; and
- risk management with Unit 1 TDAFW pump and gas turbine generator out-of-service.

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 activities constituted four maintenance risk assessments and emergent work control 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 operability issues:

- control room board deficiencies and abandoned in-place modifications;
- containment fan cooler unit closed drain valves (Unit 2);
- SI with non-conservative gas void acceptance criteria;
- water leaking in steam generator A vault (Unit 2) (partial);
- TDAFW failed coupling (Unit 1) (partial); and
- cable spreading room.

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 TSs 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 inspection constituted four completed and two partial operability 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(s):

- main feedwater isolation valve (MFIV) curtains (permanent);
- main steam isolation valve (MSIV) air line leak repair (temporary);
- EDG exhaust (temporary) (partial); and

- 480-volt temporary power to 1B-42 loads (temporary).

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 systems. 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 two completed temporary modification samples, one partial temporary modification sample, and one permanent plant modification sample as defined in IP 71111.18-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance testing (PMT) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- PMT of PAB ventilation following low flow switch replacement (Units 1 and 2);
- PMT of EDG room exhaust fan testing (Units 1 and 2);
- PMT of EDG G-01 starting air compressor;
- PMT of TDAFW pump after coupling repairs (Unit 1);
- PMT of EDG modification (Unit 2);
- PMT of main generator output breaker disconnects following hotspot repair (Unit 2); and
- PMT of main steam dump 2MS 2052 to condenser dump control valve (Unit 2).

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 TSs, the FSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure 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 PMTs to determine whether the licensee was identifying problems and entering them in 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 seven post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

Failure to Establish Emergency Diesel Generator Ventilation Damper Testing

Introduction: The inspectors identified an issue of very low safety significance (Green) and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to establish a routine testing procedure to demonstrate that the air flows for the ventilation systems in the G-01 and G-02 EDG rooms were sufficient to keep room temperatures maintained at or below the design basis. The licensee entered this issue into its CAP for evaluation and development of corrective actions.

Description: The TS 3.8.1 required, in part, that independent and redundant sources of power be provided to the Engineered Safety Feature Systems. This was met through each safeguard bus having a normal offsite power source and a standby emergency power source (EDG). There were two EDGs (G-01 and G-02) that supplied power to the Train A buses. These diesels were considered operable when the diesel room temperature was less than 115 degrees Fahrenheit with the EDG carrying design basis accident loads. For the room temperature to be maintained, three of the four gravity operated louvers must be opened.

Based on this information, the inspectors reviewed the acceptance criteria for the gravity operator louvers and found none. In response, the licensee stated the gravity louvers had to open freely; however, a specified amount was not necessary. Additionally, the licensee stated that the gravity operated louvers did not have specific acceptance criteria established to ensure air flows were met and that, instead, the fan motors were used to determine air flows. The inspectors then questioned the licensee regarding the ability to accurately predict fan air flow outputs based on the fan motors. Also, the inspectors questioned what additional monitoring was performed on the fans to ensure that there was no degradation of the fan blades, no friction on the bearings, or that no bypass flow was occurring, as well as how the test was performed in a consistent manner. The licensee provided that there was no periodic testing to ensure air flows.

On March 29, 2012, the licensee initiated CR01750276 in response to the inspectors' concerns regarding the louvers in the G-01 and G-02 EDG rooms. Specifically, the CR identified that air flows had not been routinely taken to ensure that adequate air flow requirements were met. At the conclusion of the inspection period, the licensee's corrective actions included performance of air flow measurements on the fan units,

creation of a preventive maintenance requirement for taking periodic flow measurements, and assessment of the identified issue through a condition evaluation.

Additionally, the inspectors noted that the licensee had taken air flow measurements on the fans in 1998 and 2007, but had not established acceptance criteria and routine testing. The inspectors noted differences between the 1998 and 2007 data obtained, and that the licensee had used the lesser-conservative data from these tests to support the design calculation. The inspectors questioned the use of non-conservative data values in the design calculations for the maximum temperatures in the EDG rooms to support operability. This concern was captured in CR1769204. The licensee's planned corrective actions were to revise the calculation to use the accurate data.

Analysis: The inspectors determined that the failure to establish a routine testing procedure to demonstrate that the air flows for the G-01 and G-02 rooms would keep room temperatures at or below the maximum allowable temperatures when the EDGs were carrying design basis accident loads was a performance deficiency warranting further review. Using IMC 0612, Appendix B, "Issue Screening," dated December 24, 2009, the inspectors determined that this finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute for design control. Specifically, it adversely affected the Mitigating System Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences.

The inspectors determined the finding could be evaluated using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Tables 3b and 4a, for the Mitigating Systems Cornerstone, dated January 10, 2008. The inspectors answered "No" to all of the questions in the Mitigating Systems column of Table 4a; therefore, the finding screened as having very low safety significance (Green). The licensee entered this issue into the CAP as AR01750276. The licensee's corrective actions included performance of air flow measurements on the fan units, creation of a preventive maintenance requirement for taking periodic flow measurements, and assessment of the identified issue through a condition evaluation.

This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, the licensee did not use conservative assumptions regarding the verification of the proper air flow through the SR gravity dampers in the EDG G-01 and G-02 rooms (H.1(b)). The inspectors reviewed the licensee's causal assessment and found that this assessment was consistent with their assessment of the condition.

Enforcement: Title 10 CFR 50, Appendix B, Criterion XI, "Test Control," requires, in part, that a test program be established to assure that all testing required to demonstrate that components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. Contrary to this, on March 29, 2012, the inspectors identified that the licensee failed to establish a routine testing procedure to demonstrate that the air flows for EDGs G-01 and G-02 ventilation systems would keep the room temperatures at or below the maximum allowable temperatures when the EDGs were carrying design basis accident loads. Because this violation was of very low safety significance, and it was entered into the licensee's CAP

(as CR1750276), this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2012003-01; 05000301/2012003-01; Failure to Establish Emergency Diesel Generator Ventilation System Testing).

1R20 Outage Activities (71111.20)

.1 Other Outage Activities

a. Inspection Scope

The inspectors evaluated outage activities for an unplanned Unit 2 outage that began on June 27, 2012, and continued through the end of the inspection period. The outage occurred as a result of a turbine control system malfunction that resulted in a turbine load reject which terminated when the reactor operators inserted a manual reactor trip. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage.

This inspection constituted one other partial 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:

- PAB ventilation TS-87 system monthly test (routine);
- TDAFW quarterly pump and valve test (Unit 1) (inservice testing);
- instrument air valves quarterly SR (Unit 2) (containment isolation valve); and
- reactor coolant system (RCS) leak rate (Unit 2) (RCS).

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 TSs, 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 Section XI, American Society of Mechanical Engineers (ASME) code, 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 SSC 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 one routine surveillance testing sample, one inservice testing sample, one reactor coolant system leak detection inspection sample, and one containment isolation valve sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

**Cornerstone: Emergency Preparedness**

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Observation

a. Inspection Scope

The inspectors evaluated the response to a declaration of an alert condition on April 25 to 26, 2012, to identify any weaknesses and deficiencies in classification,

notification, and protective action recommendation development activities. The licensee declared the alert after exhaust gasses from an EDG were inadvertently taken back into the EDG room during a test. The inspectors observed emergency response operations in the control room and technical support center (TSC) to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. No deficiencies were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety**

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

This inspection constituted a partial sample as defined in IP 71124.03-05.

.1 Engineering Controls (02.02)

a. Inspection Scope

An unresolved item (URI) was documented in NRC Integrated Inspection Report (IR) 05000266/2012002; 05000301/2012002, concerning additional information that was needed by the inspectors to assess the licensee's TSC ventilation system filter testing program. Supplemental calculations and reviews were performed by the licensee, and the additional information was reviewed by the inspectors. Specifically, selected procedures, system design calculations, plant configuration drawings, and related licensee documentation were reviewed. The inspectors completed these reviews to verify that the licensee's program and its implementation met the requirements of 10 CFR 20.1701 and were consistent with NRC guidance.

b. Findings

Non-Compliance With 10 CFR 20.1701 to Control the Concentration of Radioactive Material in Air and Ensure That Radiological Airborne Hazards Would Be Minimized in the Technical Support Center During a Design-Basis Accident

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR 20.1701, "Use of Process or Other Engineering Controls." The inspectors identified that the licensee failed to establish adequate high efficiency particulate air (HEPA) and charcoal filter testing procedures for ensuring that radiological airborne hazards would be minimized and the habitability of the TSC would be maintained under accident conditions. Specifically, the licensee failed to ensure engineering controls that were in place to minimize the concentration of radioactive material in air in the TSC were maintained in accordance with the design bases.

Description: The TSC is an onsite emergency response facility intended to support plant operations under emergency conditions. The TSC ventilation system is designed to remove radioactive material from the air, thereby minimizing the radioactive material entering the TSC during postulated accident scenarios.

The inspectors identified that, for an extended period of time, the licensee did not validate that the removal efficiencies in the TSC ventilation filter design bases were being achieved. Specifically, testing of the TSC ventilation HEPA and charcoal filters did not demonstrate that filter performance was in compliance with the design criteria. The design bases for the TSC ventilation system HEPA filter was 99 percent for particulate radioactive material removal efficiency. The licensee's surveillance test acceptance criterion was 95 percent. In addition, the design basis for the charcoal filter laboratory analysis was 95 percent removal efficiency of radioactive iodine. The surveillance test required 80 percent. Consequently, there was no assurance that the installed TSC ventilation equipment would perform at its designed radioactive material removal capacity, thereby minimizing the radiological exposures to the occupants of the TSC during postulated accidents.

Analysis: The inspectors determined that the failure to establish testing criteria in accordance with the system design bases was a performance deficiency consistent with IMC 0612, "Power Reactor Inspection Reports." The inspectors determined that the licensee failed to meet the requirements of 10 CFR 20.1701 to use installed process equipment to reasonably minimize the level of airborne radioactive materials. The performance deficiency was reasonably within the licensee's ability to foresee and correct and was indicative of current performance, in that, the licensee had recent opportunities to self-identify and correct the issue, including when performing recent technical reviews for NRC license amendment submittals for license renewal, alternate source term, and extended power uprate.

The inspectors reviewed IMC 0612, Appendix B, "Issue Screening," dated December 24, 2009, and found no similar examples. However, the inspectors determined that the finding was more than minor because it was associated with the program and process attribute of exposure control of the occupational radiation safety cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure radiation and radioactive material. Specifically, by testing the installed emergency ventilation system filters to removal efficiencies less than their design criteria, the licensee did not validate that the TSC ventilation system was capable of performing its design function and minimize worker exposures to airborne radioactive materials.

The finding was assessed using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," (SDP) and was determined to be of very low safety significance (Green) because it was not an as-low-as-is-reasonably-achievable (ALARA) planning issue, there was no overexposure or potential for overexposure, and the licensee's ability to assess dose was not compromised. The licensee documented this issue in its corrective action program. Corrective actions included revising applicable procedures and based on actual historical filter testing efficiencies, calculating that the TSC ventilation system was capable of maintaining a radiological habitability of less than 5 Rem total effective dose equivalent (TEDE) for the duration of the design-basis accidents.

The inspectors identified that the most significant contributor to the finding was a cross-cutting aspect in the area of human performance, resources. Specifically, the licensee failed to ensure that the TSC ventilation filter testing protocol assured compliance to the system's designed margins in that the TSC ventilation filter testing acceptance criteria were established independent of the system design requirements (H.2(a)).

Enforcement: Title 10 CFR 20.1701 requires that licensees use, to the extent practical, process or other engineering controls (e.g., containment, decontamination, or ventilation) to control the concentration of radioactive material in air. Contrary to the above, as of January 19, 2012, the licensee failed to ensure that effective engineering controls were implemented to control the concentration of radioactive material in air in the TSC in accordance with the facility's design bases. Because the issue was of very low safety significance and has been entered into the licensee's CAP (as CR01752498), the violation is being treated as an NCV consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2012003-02; 05000301/2012003-02; Non-Compliance With 10 CFR 20.1701 to Control the Concentration of Radioactive Material in Air and Ensure that Radiological Airborne Hazards Would Be Minimized in the Technical Support Center During a Design-Basis Accident). This NCV closes URI 05000266/2012002-05; 05000301/2012002-05, "TSC Filter Testing May Be Inadequate," in Section 4OA5.2.

#### 4. OTHER ACTIVITIES

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

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

###### .1 Unplanned Scrams with Complications

###### a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications performance indicator (PI) for Units 1 and 2, for the third quarter 2011 through the second quarter 2012. To determine the accuracy of the PI data reported, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, CRs, event reports, and NRC integrated IRs 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 unplanned scrams with complications samples as defined in IP 71151-05.

###### b. Findings

No findings were identified.

## .2 Reactor Coolant System Leakage

### a. Inspection Scope

The inspectors sampled licensee submittals for the RCS Leakage PI for Units 1 and 2, for the third quarter 2011 through the second quarter 2012. To determine the accuracy of the PI data reported, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator logs, RCS leakage tracking data, CRs, event reports, and NRC integrated IRs 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 reactor coolant system leakage samples as defined in IP 71151-05.

### b. Findings

No findings were identified.

## .3 Reactor Coolant System Specific Activity

### a. Inspection Scope

In the first quarter of 2012, the inspectors sampled licensee submittals for the RCS specific activity PI for Units 1 and 2 for the fourth quarter 2010 through the fourth quarter 2011. The inspectors used PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's RCS chemistry samples, TS requirements, CRs, event reports, and NRC integrated IRs 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. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze an RCS sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two reactor coolant system specific activity samples as defined in IP 71151-05.

### b. Findings

No findings were identified.



.4 Occupational Exposure Control Effectiveness

a. Inspection Scope

In the first quarter of 2012, the inspectors sampled licensee submittals for the occupational radiological occurrences PI for the fourth quarter 2010 through the fourth quarter 2011. The inspectors used PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if indicator related data was adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with radiation protection staff, the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very-high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one occupational exposure control effectiveness sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.5 Radiological Effluent Technical Specification/Offsite Dose Calculation Manual  
Radiological Effluent Occurrences

a. Inspection Scope

In the first quarter of 2012, the inspectors sampled licensee submittals for the radiological effluent Technical Specification/Offsite Dose Calculation Manual radiological effluent occurrences PI for the fourth quarter 2010 through the fourth quarter 2011. The inspectors used PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's CAP and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates to determine if indicator results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one Radiological Effluent Technical Specification/Offsite Dose Calculation Manual radiological effluent occurrences sample as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.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

In order 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 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 long-standing 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 OWAs.

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

b. Findings

No findings were identified.

.4 Selected Issue Follow-Up Inspection: Partial Turnover of Extended Power Uprate Modifications

a. Inspection Scope

The inspectors reviewed items entered in the licensee's CAP and identified various corrective action item reports identifying problems with the modification turnover process of extended power uprate (EPU) modifications installed during recent refueling outages. The inspectors elected to review this practice as a selected issue follow-up item.

This review constituted the completion of one in-depth problem identification and resolution sample as defined in IP 71152-05, completing the partial sample referenced previously in integrated IR 05000266/2012002; 05000301/2012002.

b. Findings

Partial Turnover of Extended Power Uprate Modifications

Introduction: During the inspectors' review of the licensee's partial turnover process, the inspectors identified a URI associated with the process.

Description: The inspectors selected the licensee's partial turnover process as a selected issue follow-up due to the potential inadequacies associated with the process. As previously identified in IRs 05000266/2011008; 05000301/2011008, and 05000266/2012002; 05000301/2012002, the inspectors identified problems and violations associated with the licensee's partial turnover process where systems had been partially turned over and declared operable, and it was later discovered that portions of the modification were not tested prior to being placed in-service. With the additional identification of problems associated with the partial turnover process referenced in CRs in Integrated IRs 05000266/2012002; 05000301/2012002, the inspectors were concerned that additional systems may be subject to similar issues as a result of the partial turnover process. At the completion of the first quarter inspection period, the inspectors were awaiting the requested documentation from the licensee to complete their review of this issue.

During the second quarter, the inspectors received portions of the requested documentation. The issue is unresolved pending review of the portions of the previously requested documentation (URI 05000266/2012003-03; 05000301/2012003-03, Partial Turnover of Extended Power Uprate Modifications).

.5 Selected Issue Follow-Up Inspection: Licensed Operator Respirator Qualifications And Control Room Staffing

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors found recent corrective action items documenting repetitive occurrences associated the licensed operator respirator qualifications. These CRs related to AR01670172 which documented a condition where shift staffing was challenged due to having expired licensed operator respirator qualifications. The inspectors questioned the licensee's evaluation of the CR regarding the conclusions reached. Specifically, the inspectors noted that the individual was credited with watch-standing during the period of expired qualifications and that the procedures for the annual requirements conflicted. The licensee entered the inspectors' concerns in the CAP as AR01747333 and AR1772196. The licensee was able to demonstrate through timed entries and door logs that control room staffing was not compromised due to the expired respirator qualification. Additionally, the licensee's corrective actions created a report to track licensed operator respirator qualifications as well as initiated a procedure change requests to more clearly document licensed operator watch-standing requirements and clarify the definitions for annual requirements.

This review constituted one in-depth problem identification and resolution 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 Unit 2 Planned Downpower to Repair Switchyard Hotspot

###### a. Inspection Scope

The inspectors reviewed the plant's response to a planned downpower on Unit 2. Unit 2 was taken offline while remaining critical on April 21, 2012, to allow repair of two hot spots on two phases of a disconnect switch in the switchyard. The repairs were successful and the unit was placed back online on April 22, 2012. 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 Alert Declared Due To Toxic Gas

###### a. Inspection Scope

The inspectors reviewed the plant's response to an Alert on April 25 to 26, 2012, that was declared during a special maintenance run of the G-02 EDG. During the EDG run, exhaust fumes entered the adjacent air compressor room, a vital area, and the levels of toxic gas from these fumes exceeded Occupational Safety and Health Administration (OSHA) limits. The EDG was immediately secured and the room ventilated. The licensee corrected the system configuration problem that caused the inleakage and re-performed the run. 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.

##### .3 Failure of Turbine-Driven Auxiliary Feedwater Pump Coupling

###### a. Inspection Scope

On May 21, 2012, the inspectors reviewed the plant's response to the failure of the Unit 1 TDAFW pump coupling and related unplanned entry into a 72-hour limiting condition for operation action statement. The inspectors reviewed the repair and other activities the licensee performed to be able to return the pump to service within the allowed completion time. Documents reviewed are listed in the Attachment to this report.

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

###### b. Findings

No findings were identified.

.4 (Closed) Licensee Event Reports (LERs) 05000301/2011-004-00 and 05000301/2011-004-01, Automatic Reactor Trip During Startup Physics Testing Due to Source Range

Introduction: A Green NCV of 10 CFR 50.65(a)(3) was self-revealed when an unplanned reactor trip occurred as a result of the failure of a source range detector during low power physics testing. Specifically, the licensee failed to adequately evaluate operating experience and incorporate it into preventive maintenance programs to periodically replace aging electrical subcomponents in nuclear instrumentation systems and a subsequent age-related failure resulted in initiating a plant transient.

Description: On June 13, 2011, during the performance of beginning of life (BOL) low power physics testing, and with reactor power decreasing due to inserting reactor control rods to obtain test data, power decreased below the setpoint that actuates and automatically places source range monitoring (SRM) instrumentation in service. When SRMs were actuated, channel 2N31 experienced a failure of the associated high voltage power supply. This failure satisfied the SRM high flux reactor trip logic and resulted in an automatic reactor trip.

Subsequent review by the licensee determined that the failure was due to age-related degradation and that the most likely cause of the failure was because the output filter capacitors were degraded. The licensee indicated that the recent failures were experienced on power supplies manufactured in the 1970's, and that the date codes on the capacitors in the subject units was also from the 1970's. Additionally, the licensee noted that many of the components used in the construction of the related units were 40 years old.

The licensee's root cause analysis identified historical operating experience as early as 1992, which reflected the need to periodically repair or replace power supplies; and that in 1998, Westinghouse provided a recommendation to replace power supplies; or at a minimum, replace filtering capacitors every 10 years. In 1998, the licensee made a decision not to incorporate the vendor recommendations into the preventive maintenance program.

The licensee concluded that the root cause could be attributed to life cycle management and preventive maintenance program deficiencies. The corrective action to prevent recurrence was related to the life cycle management plan for the nuclear instruments. The inspectors considered that this action was adequate to address concerns related to the nuclear instruments. The inspectors reviewed the issue with the licensee with respect to subcomponent aging management. The licensee had indicated that subsequent to this event and industry reviews, it had expanded the subcomponent aging management program. The licensee provided evidence which demonstrated that a program for subcomponent aging and management was in the final stage of development, and that the program was reviewing several categories of subcomponents consisting of over 4,000 items. Additionally, the program was looking at single point vulnerabilities and risk prioritization of reviews. The inspectors concluded that this program appeared to approach subcomponent aging management systematically and would provide a strong barrier to preclude similar failures in the future.

Analysis: The inspectors determined that the failure to incorporate operating experience related to aging of electrical subcomponents specific to nuclear instrument source range

monitors into preventive maintenance programs was a performance deficiency warranting further review. The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance. Specifically, the availability and reliability of the nuclear instruments was degraded to a point where an instrument failure caused a reactor trip, an event that adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations.

The inspectors determined that the finding could be evaluated using IMC 0609, "Significance Determination Process," Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings," Table 4a for the Initiating Events Cornerstone, dated January 10, 2008. The inspectors determined that the finding did not contribute to both the likelihood of a reactor event and the likelihood that mitigation equipment or functions would not be available; therefore, the issue screened as having very low safety significance (Green).

The inspectors reviewed the licensee's root cause analysis. The licensee considered the issue a legacy issue related to the 1998 decision to ignore 1992 operating experience and a 1998 vendor recommendation to replace power supplies at 10-year intervals. Because the adverse decision occurred in 1998, the licensee concluded that no crosscutting aspect occurred. However, the inspectors noted that the licensee continued to amass internal and external operating experience from 1998 to 2011, including a 2010 NRC-identified trend of source range monitoring failures as documented in IR 05000266/2010002; 05000301/2010002, Section 4OA2.3, "Semiannual Trend," and that a rigorous and thorough evaluation of these issues could have precluded the most recent failure. Therefore, the inspectors determined that the issue had a crosscutting aspect in the area of corrective action program, evaluation/extent of condition. Specifically, the licensee failed to thoroughly evaluate related nuclear instrument failure rates such that the resolutions addressed the causes and extent of conditions for age-related failures of electrical subcomponents (P.1(c)).

Enforcement: Title 10 CFR 50.65(a)(3) states, in part, that preventive maintenance activities shall be evaluated at least every refueling cycle and take into account, where practical, industry-wide operating experience. Contrary to this requirement, the licensee failed to evaluate its preventative maintenance activities to take into account a Westinghouse Infogram, dated August 8, 1998, that recommended replacement of power supplies every 10 years, and other industry-wide operating experience issued since 1998 related to the replacement of aging electrical subcomponents. This failure resulted in electrical subcomponents of a source range monitor not being replaced since the 1970s. A failure of one of these subcomponents resulted in a trip of the Unit 2 reactor on June 13, 2011.

Because this violation was of very low safety significance and it was entered into the licensee's CAP (as root cause evaluation (RCE) 01660378-02), this violation is being

treated as an NCV, consistent with Section 2.3.2 of the NRC enforcement Policy (NCV 05000266/2012003-04; 05000301/2012003-04, Failure to Incorporate Industry Operating Experience Into Preventive Maintenance Programs for Nuclear Instrumentation).

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

#### 4OA5 Other Activities

.1 (Closed) URI 05000266/2011005-02; 05000301/2011005-02, Determining an Individual's Dose of Record with Discrepant TLD/ED Data Inputs

The URI described a condition where additional information was needed by the inspectors to assess the licensee's program when determining an individual's radiological dose of record. This item was discussed and closed by NCV 05000266/2012002-06, "Determining an Individual's Dose of Record With Discrepant TLD/ED Data Inputs."

.2 (Closed) URI 05000266/2012002-05; 05000301/2012002-05, TSC Filter Testing May Be Inadequate

a. Inspection Scope

The URI described a condition where additional information was needed by the inspectors to assess the licensee's TSC ventilation system filter testing program. This item was closed and discussed in Section 2RS3 by NCV 05000266/2012003-02; 05000301/2012003-02, "Non-Compliance with 10 CFR 20.1701 to Control the Concentration of Radioactive Material in Air and Ensure That Radiological Airborne Hazards Would Be Minimized in the Technical Support Center During a Design-Basis Accident."

.3 Temporary Instruction (TI)-2515/182 - Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks

a. Inspection Scope

Leakage from buried and underground pipes has resulted in ground water contamination incidents with associated heightened NRC and public interest. The industry issued a guidance document, NEI 09-14, "Guideline for the Management of Buried Piping Integrity," (ADAMS Accession No. ML1030901420), to describe the goals and required actions (commitments made by the licensee) resulting from this underground piping and tank initiative. On December 31, 2010, NEI issued Revision 1 to NEI 09-14, "Guidance for the Management of Underground Piping and Tank Integrity," (ADAMS Accession No. ML110700122), with an expanded scope of components which included underground piping that was not in direct contact with the soil and underground tanks. On November 17, 2011, the NRC issued TI-2515/182, "Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks," to gather information related to the industry's implementation of this initiative.

The inspectors reviewed the licensee's programs for buried pipe, underground piping, and tanks in accordance with TI-2515/182 to determine if the program attributes and completion dates identified in Sections 3.3 A and 3.3 B of NEI 09-14, Revision 1, were



contained in the licensee's program and implementing procedures. For the buried pipe and underground piping program attributes with completion dates that had passed, the inspectors reviewed records to determine if the attribute was in fact complete and to determine if the attribute was accomplished in a manner which reflected good or poor practices in program management.

Based upon the scope of the review described above, Phase I of TI-2515/182 was completed.

b. Observations

The licensee's buried piping and underground piping and tanks program was inspected in accordance with Paragraphs 03.01.a through 03.01.c of TI-2515/182, and was found to meet all applicable aspects of NEI 09-14, Revision 1, as set forth in Table 1 of the TI.

c. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On June 26, 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 Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks (TI-2515/182) with Program Engineering Supervisor, Mr. E. Schmidt, and other members of the licensee staff on May 1, 2012. The licensee confirmed that none of the potential report input discussed was considered proprietary; and
- the inspection results of the unresolved item with Mr. J. Petro, Acting Licensing Manager, on June 12, 2012.

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

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

E. Schmidt, Program Engineering Supervisor  
A. Watry, Buried Pipe Engineer  
B. Scherwinski, Licensing  
B. Hennessy, Licensing Supervisor  
J. Petro, Acting Licensing Manager

#### Nuclear Regulatory Commission

M. Kunowski, Chief, Reactor Projects Branch 5

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

05000266/2012003-01; 05000301/2012003-01	NCV	Failure to Establish Emergency Diesel Generator Ventilation System Testing (Section 1R19)
05000266/2012003-02; 05000301/2012003-02	NCV	Non-Compliance With 10 CFR 20.1701 to Control the Concentration of Radioactive Material in Air and Ensure That Radiological Airborne Hazards Would Be Minimized in the Technical Support Center During a Design-Basis Accident (Section 2RS3)
05000266/2012003-03; 05000301/2012003-03	URI	Partial Turnover of Extended Power Uprate Modifications (Section 4OA2.4)
05000266/2012003-04; 05000301/2012003-04	NCV	Failure to Incorporate Industry Operating Experience Into Preventive Maintenance Programs for Nuclear Instrumentation (Section 4OA3.4)

### Closed

05000266/2012003-01; 05000301/2012003-01	NCV	Failure to Establish Emergency Diesel Generator Ventilation System Testing (Section 1R19)
05000266/2012003-02; 05000301/2012003-02	NCV	Non-Compliance With 10 CFR 20.1701 to Control the Concentration of Radioactive Material in Air and Ensure That Radiological Airborne Hazards Would Be Minimized in the Technical Support Center During a Design-Basis Accident (Section 2RS3)
05000301/2011-004-00	LER	Automatic Reactor Trip During Startup Physics Testing Due to Source Range (Section 4OA3.4)
05000301/2011-004-01	LER	Automatic Reactor Trip During Startup Physics Testing Due to Source Range (Section 4OA3.4)
05000266/2012003-04; 05000301/2012003-04	NCV	Failure to Incorporate Industry Operating Experience Into Preventive Maintenance Programs for Nuclear Instrumentation (Section 4OA3.4)
05000266/2011005-02; 05000301/2011005-02	URI	Determining An Individual's Dose Of Record With Discrepant TLD/ED Data Inputs (Section 4OA5.1)
05000266/2012002-05; 05000301/2012002-05	URI	TSC Filter Testing May Be Inadequate (Section 4OA5.2)

## 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

- 2011 Summer Readiness Package; May 24, 2011
- 2012 Summer Readiness Package; May 24, 2012
- AOP-13C; Severe Weather Conditions; Revision 26
- AOP-31; Solar Magnetic Disturbance Alert Response; Revision 0
- AR01675202; Solar Disturbance
- AR01675213; FRCC And NERC On A Solar Flare That May Impact Earth 8/5 Strong Solar Activity
- AR01725580; 2012 Site Excellence Plan: Engineering (Improved Margin)
- AR01728251; Summer Readiness Period Action Items
- AR01749094; AOP-13C Severe Weather Conditions Requires Emergent Changes
- AR01757855; OI 155 Chemical Treatment of SW/Potential Impact On U2 B RCP
- AR01764102; HX38 Condenser Summer Readiness Issue
- AR01767718; Solar Magnetic Disturbance Impact On 1X-03 Is Unknown
- AR0176879; AOP-13B Number Used In 1996 Almost Reused Document
- AR01776849; F52-Q303, 345KV Breaker Tripped Open From Lightning Strike
- ARP 1-PPCS-008; Priority Alarm Met Tower Unit 1; Revision 2
- ARP 2-PPCS-008; Priority Alarm Met Tower Unit 2; Revision 2
- BG AOP-13C; Severe Weather Conditions; Revision 14
- DBD-20; 345 KVAC System; Revision 8
- Email From J. Schweitzer; Subject: NERC Communication Release: "Major Solar Disturbance On The Way?"; August 4, 2011
- EPMP 6.0; Alert And Notification System (ANS); Revision 10
- EPMP 9.0; Equipment Important To Emergency Preparedness; Revision 1
- FSAR Section 7.5; Operating Control Stations; UFSAR 2010
- FSAR Section 8.0; Introduction To The Electrical Distribution Systems; UFSAR 2010
- FSAR Section 8.1; 345K VAC Electrical Distribution System (345 kV); UFSAR 2010
- ICP 06.003-2; Meteorological System Calibration; Revision 1
- ICP 06.055; Meteorological Tower Instrumentation 6 Month Calibration Procedure; Revision 5
- Log Entries Report; January 24 To April 23, 2012
- National Weather Service Hazardous Weather Outlook; June 18, 2012
- Needs Assessment Worksheet For TRR 01675202; September 27, 2011
- NOAA Space Weather Scales; March 1, 2005
- NP 2.1.5; Electrical Communications, Switchyard Access And Work Planning; Revision 21
- NRC Information Notice No. 90-42: Failure Of Electrical Power Equipment Due To Solar Magnetic Disturbances; June 19, 1990
- ODI.104; Solar Magnetic Disturbance Alert Response; Revision 00
- OI 35B; Electrical Equipment General Information; Revision 17
- OP-AA-102-1002; Seasonal Readiness; Revision 0
- PB MR 91-161; System 345kV; June 20, 1991
- PBN Seasonal Readiness Report; 2012 Winter Readiness Concerns/Issues; April 2012

- PBNP System Engineering Summer Readiness Review; Component Cooling Water; February 15, 2012
- PBNP System Engineering Summer Readiness Review; HVAC Rs And NR; February 21, 2012
- PBNP System Engineering Summer Readiness Review; Service Water; February 21, 2012
- PJM; Weather And Environmental Emergencies; November 1, 2011
- Safety Logs; June 17, 2012
- Station Log; June 17, 2012

#### 1R04 Equipment Alignment

- CL 13E Part 1; Auxiliary Feedwater Valve Lineup Turbine-Driven Unit 1; Revision 45
- CL 7A; Safety Injection System Checklist Unit 2; Revision 31
- Drawing 018974; Safety Injection System; Revision 53
- Drawing 018975; Safety Injection System; Revision 54
- Drawing 018976; Safety Injection System; Revision 47
- OI 129; SI System Fill And Vent Unit 2; Revision 6

#### 1R05 Fire Protection

- DBD-T-40; Fire Protection/Appendix R; Revision 9
- Drawing 290583; Fire Protection For Site Plan; Revision 11
- Drawing 290585; Fire Protection For Turbine Building, Aux Building, And Containment, Elev. 8'-0"; Revision 21
- Drawing 290587; Fire Protection For Turbine Building, Aux Building, And Containment; Revision 11
- Drawing 290590; Fire Protection For Turbine Building, Aux Building, And Containment, Elev. 44'-0"; Revision 09
- Drawing 290600; Fire Protection For Turbine Building, Aux Building, And Containment, Elev. 66'-0"; Revision 06
- Duke Engineering And Services Fire Area Analysis Summary Report; Fire Area: A01-B PAB 26' Elevation – Monitor Tank Area (FZ 187); August 8, 2005
- Duke Engineering And Services Fire Area Analysis Summary Report; Fire Area: A01-H Unit 2 Façade; August 8, 2005
- FEP 4.6; Façade Unit 2; Revision 8
- FOP 1.2; Potential Fire Affected Safe Shutdown Components; Revision 21
- OM 1.1; Conduct Of Plant Operations, PBNP Specific; Revision 40
- OM 3.1; Operations Shift Staffing Requirements; Revision 16
- OM 3.27; Control Of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 44

#### 1R06 Flood Protection

- AR01633384; IER1 11-1 Unanalyzed Challenge From Non-Seismic Int Flooding
- AR01752182; Draft NEI Flood Walkdown Document Not Available
- AR01762831; Water Entering SEI-06211 During Water Intrusion
- AR01762834; U1 Façade Southwest Corner Significant Water Entry
- AR01763180; U1 Façade Elevator Pit Flooded - Again
- AR01763259; 1P-10A Cubicle Had Accumulated Ground Water
- AR01763352; RE-113 PAB Area Monitor HI Alarm From Spiking
- AR01765294; Groundwater Intrusion Into The 1P-10A RHR Cubicle
- AR01765466; Schedule Scrub Results Concerning Unit 2 RCP Seal Issues

- AR01765723; Groundwater Intrusion Into The 1P-10A RHR Cubicle
- AR01767771; Plugging Elevator Sump Drains Not The Right Thing To Do
- CE 01633384-01; Six Bulk Storage Tanks In PAB Not Contained In Dikes Or Rooms
- Floodable Volume Of The -19 Ft Elevation; Completed April 1, 2011
- FSAR Section 10.2; Auxiliary Feedwater System (AF); UFSAR 2010
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- FSAR Section 9.2; Residual Heat Removal (RHR); UFSAR 2010
- NPC-27204; Letter From S. Burstein, Western Electric Power Company, To G. Lear, NRC; Subject: Docket Nos. 50-266 And 50-301, Flooding Resulting From Non-Category I Failure, Point Beach Nuclear Plant – Units 1 And 2; February 17, 1975
- NPC-28670; Letter From C. W. Fay, Western Electric Power Company, To H. R. Denton, NRC; Subject: Docket Nos. 50-266 And 50-301, Final Resolution Of Generic Letter 81-14, Seismic Qualification Of Auxiliary Feedwater System, Point Beach Nuclear Plant – Units 1 And 2; April 26, 1985
- POD 01633384; Unanalyzed Challenge From Non-Seismic Internal Flooding (Monitor Tanks And Waste Distillate Tanks); Revision 0
- Station Log; May 8-12, 2012
- TAR 01633384; Unanalyzed Challenge From Non-Seismic Internal Flooding (Monitor Tanks And Waste Distillate Tanks); Revision 0

#### 1R11 Licensed Operator Regualification Program

- AR01747380; Simulator Reliability Below Expectations
- AR01748808; Simulator PPCS Stopped Functioning During LOI Training
- AR01748875; Nuclear Oversight Finding: Management Oversight Of Simulator
- FP-T-SAT-73; Licensed Operator Regualification Program Examinations; Revision 8
- NARS Form For Training Evolution; May 21, 2012
- OM 1.1; Conduct Of Plant Operations, PBNP Specific; Revision 40
- OP 3A Unit 2; Power Operation To Hot Standby Unit 2; Revision 7
- OP-AA-100-1000; Conduct Of Operations: Revision 6
- PBNP LOCT Cycle 12C Schedule; Revision 2
- Simulator Differences List; Cycle 12C; May 21, 2012

#### 1R12 Maintenance Rule Effectiveness

- ACE 01670189-02; Erratic Operation Displayed During Performance Of IT-08A Cold Start Of Turbine-Driven Auxiliary Feed Pump And Valve Test (Unit 1); Revision 1
- RCA For AR1173557-02; Unit 2 Turbine Driven Auxiliary Feedwater Pump (2P-29-T) Casing Leak Identified During Start Of IT-09A; Completed July 6, 2010
- RMP 9044-1; Auxiliary Feedwater Pump Terry Turbine Overhaul; Revision 11
- System Health Report; Unit 1 Auxiliary Feedwater; January 1 To March 31, 2012
- System Health Report; Unit 2 Auxiliary Feedwater; January 1 To March 31, 2012
- Thomas Series 54 Couplings; Installation Instruction

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

- 2-SOP-CC-001; Component Cooling System; Revision 22
- AOP-9B Unit 1; Component Cooling System Malfunction; Revision 22
- AR01731219; Thermography Reading For 2F52-142 Breaker Limited Users
- AR01737362; While Performing IT-805, 2CC-726C Leaked By 85 Gal In 5 Min.
- AR01748666; Valve Is Difficult To Operate

- AR01748700; Cross Unit CC Leakage During The Performance Of IT 805
- AR01766439; Request Review Of HX-12C Operability
- Calc No. 97-0118; Capacity To Achieve Cold Shutdown In Both Units With One CCW Pump And Two CCW Heat Exchangers; April 27, 2011
- CCW Surge Tank Level, Units 1 And 2, 1LI-6188; March 25 To March 27, 2012
- CE 01748700-01; Component Cooling Leakage Occurred During Performance Of IT 805; April 4, 2012
- Drawing 018982; Auxiliary Coolant System, Unit 1; Revision 42
- EOP-1.3 Unit 1; Transfer To Containment Sump Recirculation – Low Head Injection; Revision 47
- FSAR Appendix A.6; Shared System Analysis; UFSAR 2008
- FSAR Section 9.1; Component Cooling Water (CC); UFSAR 2010
- Hypothetical Risk Management Worksheet, Units 1 And 2; April 26, 2012
- IT 805; Component Cooling Water System Valves U-2; Completed March 26, 2012
- Log Entries Report; Various Dates February 23 To March, 26, 2012
- NP 10.3.7; On-Line Safety Assessment; Revision 26
- OP 2B; 345 kV Transmission System Impacts Upon PBNP Station Operations; Revision 4
- PB – 2F52-142 Unit 2 Generator Breaker A Phase Monitoring Plan
- PB032221-11; Letter From L. Gundrum, NRC, To R. Grigg; Subject: Issuance Of Amendments Re: Technical Specification Changes For Revised System Requirements To Ensure Post-Accident Containment Cooling Capability (TAC Nos. M96741 And M96742); July 9, 1997
- POD 01766439; Request Review Of HX-12C Operability; Revision 0
- PRA 5.14; Component Cooling Water System Notebook; Revision 0
- Responses To NRC Questions; Received June 12, 2012
- Risk Management Worksheets, Units 1 And 2; April 21-28, 2012
- Safety Monitor, Unit 1; April 3, 2012
- Safety Monitor, Unit 1; Various Dates February 22 To March 26, 2012
- Station Log; April 12, 2012
- Station Log; February 3, 2012
- TLB-9; Component Cooling Water Surge; ID W 685-J-114, Tank 1(2)T-12; Revision 3
- Trend Display 3; CCW Temp; March 26, 2012

#### 1R15 Operability Evaluations

- AR01165060; Gas Void – Negligible Void Found At 2SI-V14
- AR01165062; ECs Possibly Not In Correct Status
- AR01166814; Gas Void – Negligible, Smaller Void Found At 2SI-V14
- AR01657344; 1P-29-T Governor Valve Stem Steam Leak
- AR01667491; Voiding In U2 RHR Core Deluge Line (“A” Train)
- AR01670550; 1P-29 Gov. Shaft Has Increased Steam Leakage
- AR01680372; Very Small Void Found At 2SI-V14
- AR01684317; PB2 Inside Containment Gas Void UT Results
- AR01693921; Small Gas Voids Found, PB2 LHSI Train A
- AR01701509; CFC Fan Motor Cooler Condensate Drain Valve Position
- AR01705654; Very Small Gas Voids, PB2 Inside Containment
- AR01712999; Operability Concern: U2 CFC Accident Fan Cooler Drn Vlvs
- AR01714813; Very Small Gas Voids, PB2 Inside Containment
- AR01716079; Wires Inside U-1 Control Boards Not Spared Correctly
- AR01723005; 1C-03 Horizontal Wireway PL-A Cannot Close
- AR01723012; C-02 Riser 32 Train Separation Wireway PB22 Missing Cover

- AR01723019; C-02 Remove Sound Powered Headphone Permanently Wired In
- AR01723362; 1C-004 Internal Risers 7 & 9 Have Large Openings In Wireways
- AR01723700; Lift Wires And Remove Minalites For CS-2130 Abandonment
- AR01734709; Verification Of Wire Terminations For 1C-04 MOB-42 And 43
- AR01745582; 2012 Mid-Cycle: Safety – Extension Cords In CR >90 Days
- AR01747782; Gas Void Accept. Criterion For 1-IC-SI-D11 Non-Conservative
- AR01749161; Review Of Overall Control Room ARs
- AR01750355; QC Inspection points Not Included In Work Tasks
- AR01768931; TDAFWP Coupling Ejected Pieces During Run
- AR01769140; Flush Required On 1P29 TDAFWP Prior To Return To Service
- AR01769277; Pump Holddown Bolt In Southwest Corner Not Tight
- AR01769697; Coupling For 1P-29 Did Not Come With Full Set Of Bolting
- AR01769990; Small SW Leak Found
- AR01770001; Drain Trap Union Leaking
- AR01770007; 1P-29 Turb. Outboard Bearing Temperatures During IT-8A
- AR01770266; TDAFW Pump Mission Time In DBD-P-54 Questioned By NRC
- AR01770327; Cable Spreading Room Temperature Out Of Spec High
- AR01770729; Low Margin On VNCSR Creates Elevated Risk
- AR01770731; Suspected Leak By Causing Elevated Temperature In CSR
- AR01771841; 1P-29-T TDAFW Turbine Bolting Changes
- AR01772353; Condition Adverse To Quality – 1P-29-T
- AR01772594; Replace Shim Packs On The 1P-29-T Coupling
- AR01772637; Replace East Hold Down Studs On 1P-29-T
- AR01772640; Correct 1P-29-T Exhaust Flange Misalignment
- AR01774453; DY0C RMP Is Quarantined
- AR01774906; Old Abandoned AFW Cables Are Not Properly Spared
- AR01774944; Performance Of IT 16 Can Increase CSR Temperature
- AR01775121; Planned Maintenance Outages On Sirens K-004, K-005, K-006
- AR01775202; Unexpected Alarm HP Feedwater Heater SA Or B High Or Low
- AR01775325; EPRI Issued NDE Alert Letter Based On North Anna OE
- AR01775418; Simulator Scenario Programs Not Working Properly
- AR01775425; Change In Stroke Open Time For 2CV-1296
- Basis For Immediate Operability (CR01712999); December 6, 2011
- Drawing 171951; Containment Vent Fan Motor Base And Motor Cooling Coil Housing; Revision 09
- Drawing 275461; Service Water System; Revision 13
- Drawing 332894; Fan Motor Cooler; Revision 3
- Drawing 335353; 24x66 Containment Fan Coolers With Supply Lower Left; Revision 3
- Drawing 35476; Unit 2 Heating And Ventilation Containment Area 11 Plan El. Above 66'-0"; Revision 08
- Drawing 35477; Unit 2 Heating And Ventilation Containment Area 11 Plan El. 46'-0"; Revision 05
- Drawing 35478; Unit 2 Heating And Ventilation Containment Area 11 Plan El. 21'-0"; Revision 03
- Drawing 35480; Unit 2 Heating And Ventilation Containment Area 11 Sections; Revision 06
- Drawing 35481; Unit 1 And 2 Heating And Ventilation Containment Areas 7 And 11; Revision 07
- EC 276517; 1P-029-T Coupling Alignment Review For WO 342825; Revision 9; May 23, 2012
- Email From N. Reckelberg To B. Beltz; Subject: CFC Motor Cooler Question; June 5, 2012



- Engineering Evaluation No. EC 276517; 1P-029-T Coupling Alignment Review For WO 342825
- FSAR Section 6.3; Containment Air Recirculation Cooling System (VNCC); UFSAR 2010
- NRC Inspection Question No. 1; May 31, 2012
- NRC Inspection Question No. 10; May 31, 2012
- NRC Inspection Question No. 11; June 1, 2012
- NRC Inspection Question No. 2; May 31, 2012
- NRC Inspection Question No. 3; June 1, 2012
- NRC Inspection Question No. 4; May 31, 2012
- NRC Inspection Question No. 5; May 31, 2012
- NRC Inspection Question No. 6; June 1, 2012
- NRC Inspection Question No. 7; May 31, 2012
- NRC Inspection Question No. 8; May 31, 2012
- NRC Inspection Question No. 9; June 1, 2012
- OI 155; Chemical Treatment Of Service Water For Mussels; Revision 34
- Operator Rounds; June 18-19, 2012
- PI-AA-100-1008; Condition Evaluation; Revision 3
- POD 01712999; Operability Concern: U2 CFC Accident Fan Cooler Drn Vlvs; Revision 0
- POD 01770327; Cable Spreading Room Temperature Out Of Spec High; Revision 0
- POD For CR 1771762; NRC Questions On G01/G02 Tornado Missile Temp Modification
- POD For CR1772353; Condition Adverse To Quality – 1P-29-T; Revision 0
- SCR 2011-0324; Revise 1/2-SOP-VNCC-001 Through 004, 1/2W-1A1 Through 1/2W-1D1 Accident Fan Recirculation Unit Draining, Filling And Venting Procedures; November 27, 2011
- SCR 2012-0089; 1P-29 Turbine Driven Aux Feed Pump Turbine Alignment; May 23, 2012
- TAR 01667491; Voiding In U2 RHR Core Deluge Line ("A" Train); Revision 0

#### 1R18 Plant Modifications

- AOP-13C; Severe Weather Conditions; Revision 26
- AR01728544; PSS Design Functions Not Considered In Modification
- AR01752847; 2MS-380B IA Leak
- AR01763193; 1CS-3124 And 1CS-3125 Comp. Actions For AOP-13C
- AR01763196; 2CS-3124 And 2CS-3125 Comp. Actions For AOP-13C
- AR01763206; Cold Weather Actions – AOP-13C Guidance
- AR01779751; 2Q12 Green NCV – G01/G02 Room Fan And Damper Test Control
- B 3.7.2; MSIVs And Non-Return Check Valves; Unit 2 – Amendment No. 245
- B 3.7.3; MFIVs, MFRVs, And MFRV Bypass Valves; Unit 2 – Amendment No. 245
- CE For AR01752847-01; Air Leak Found on 2MS-380B
- CRN 262425; Revise Cold Weather Strategy; Revision 2
- CRN 262894; Manufacturer's Recommended Minimum Ambient Temperature For Hiller Actuator Components Is -20°F; Revision 0
- Design Input Consultation Forms; EC 276081 Temporary Instrument Air Leak Repair Upstream Of 2MS-380B; Various Dates April 9 To April 16, 2012
- Drawing 084854; Main & Reheat Steam System; Revisions 01 And 51
- EC 273303; Provide Temp Power To Select 1B-42 Loads; Revision 1; October 6, 2011
- EC 276081; Instrument Air Leak At 2MS-280B Temporary Repair Of Air Line Leak
- FP-E-MOD-03; Temporary Modifications; Revisions 9 And 10
- Modification Classification; Install Temp Mod On 2MS-02017 Per EC 276081; Completed April 13, 2012
- Modification Classification; Provide Temp Power To Select 1B-42 Loads, Per EC 273303; Completed September 28, 2011

- MR No. 96-014-B; MSIV Control Solenoid Replacement; October 7, 1998
- PC 49 Part 4; Auxiliary Building Miscellaneous And Facades; Revision 27
- SCR 2011-0207-01; EC 273303; Provide Temporary Power To Select 1B-42 Loads; February 1, 2012
- SCR 2012-0057; Install Temp Mod On 2MS-00380B Per EC 276081; April 12, 2012
- Station Logs; Various Dates April 6 To June 12, 2012
- Temp Mod Extension; Install Temp Mod On 2MS-02017 Per EC 276081; Completed April 13, 2012
- WO Package 40155064 01; 2MS-380B IA Leak

#### 1R19 Post-Maintenance Testing

- 0-SOP-G02-001; Maintenance Operation For EDG G-02; Completed April 26, 2012
- AR01722333; VNDG-04178-M / Replace Broken Motor Operator
- AR01750276; G-01 And G-02 Diesel Room Air Flow NRC Concern
- AR01753241; VNPAB Inoperable Due To FS-3297
- AR01769204; Calculation 2005-0054 Rev. 2 Potential Non-Conservatism
- B 3.8.1; AC Sources – Operating; January 18, 2010; June 1, 2009; January 19, 2008; May 31, 2007; Unit 1-Amendment No. 215, Unit 2-Amendment No. 220; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206
- Calc 2005-0054; Control Building GOTHIC Temperature Calculation; Revisions 1 And 2
- CE 1750276-01; NRC Concern With Proper Air Flow In G-01 And G-02 Diesel Rooms
- EN47896; Licensed Operating Supervisor Tested Positive For A For-Cause Test For Alcohol; May 3, 2012
- IT 08A; Cold Start Of Turbine-Driven Auxiliary Feed Pump And Valve Test (Quarterly) Unit 1; Revision 65
- NARS Forms; April 25, 2012
- NP 10.3.7; On-Line Safety Assessment; Revision 27
- PBTP 157; G01/G02 Diesel Room Exhaust Fan Flow Measurement; Completed July 6, 2007
- PBTP-249; EDG Stack Test; Completed April 30, 2012
- PdMA Report 360458 0W-012B-M MCE; MCE Testing On 02/09/2010 For 0W-012B-M, G-01 Room Exhaust Fan Motor; February 9, 2010
- PdMA Report 360458 0W-012C-M MCE; MCE Testing Of 0W-012C-M; February 22, 2010
- RMP 9044-1; Auxiliary Feedwater Pump Terry Turbine Overhaul; Revision 28
- Station Log; Various Dates From April 8 To April 27, 2012
- TAR 1766629; Review G-01 Operability Versus Gravity Louvers; Revision 0
- Troubleshooting Log For AR176931; May 23, 2012
- TS 81; Emergency Diesel Generator G-01 Monthly; Completed May 20, 2012
- TS 87; Primary Auxiliary Building Ventilation System Monthly Checks; Completed April 10, 2012
- WO 40106974; 2F52-142 A Phase – Output Side Bolded Connection Hot
- WO Package 00342825-16; 1P-029-T Contingency Work Order To Overhaul If Required -2C
- WO Package 00360458-01; W-012B-M, MCE Analyze Motor (2 B52-329H/2B-32)
- WO Package 00360459-01; W-012C-MCE Analyze Motor (2 B52-328M/2B-32)
- WO Package 40070360 01; 2MS-02052-O Replace Actuator
- WO Package 40110297 07; K-004A Inspect And Maintain Diesel Air Start Compressor

#### 1R20 Unplanned Outage

- 2F3201 Forced Outage Critical Path; June 27, 2012
- 2F32HS Forced Outage Issues And Actions

- Daily Status Report; June 29, 2012
- EN 48053; Unit 2 Manual Reactor Actuated Due To Indications Of 100% Load Rejection; June 27, 2012
- NP 5.3.3; Incident Investigation And Post-Trip Reviews; Completed June 27, 2012
- OP 3A Unit 1; Power Operation To Hot Standby Unit 1; Revision 9
- OP 3B; Reactor Shutdown; Revision 43
- PBNP Outage Status Report; June 29, 2012
- PBNP Shutdown Safety Assessment And Fire Condition; Unit 2; June 29, 2012
- PBNP Unit 2; Forced Outage List; As Of June 29, 2012
- Safety Monitor, Unit 1; June 27 To 28, 2012
- Safety Monitor, Unit 2; June 27, 2012
- Station Log; June 27 To June 29, 2012

#### 1R22 Surveillance Testing

- 3.3.3; Post Accident Monitoring (PAM) Instrumentation; Unit 1 - Amendment No. 215, Unit 2 - Amendment No. 220; Unit 1 - Amendment No. 201, Unit 2 - Amendment No. 206
- 3.4.13; RCS Operational Leakage; Unit 1 - Amendment No. 223, Unit 2 - Amendment No. 229; And Unit 1 - Amendment No. 201, Unit 2 - Amendment No. 206
- 3.6.3; Containment Isolation Valves; Unit 1 - Amendment No. 201, Unit 2 - Amendment No. 206; Unit 1 - Amendment No. 231, Unit 2 - Amendment No. 236
- AOP-1B; Reactor Coolant Pump Malfunction; Revision 20
- AR01681115; Air Fitting Leak
- AR01752323; Increased Leakoff From Unit 2 'B' RCP #2 Seal
- AR01753068; AOP-1B, RCP Malfunction, Entered Due To Hi RCP Seal Leakage
- AR01753241; VNPAB Inoperable Due To FS-3297
- AR01754554; AOP-1B Entry Due To Reactor Coolant Pump Seal Problems
- AR01755405; Momentary 2P-1B Seal Flow Low Alarm
- AR01762008; 2P-001B Seal Performance During Fan Starts
- Control Room Log – Modes 1-3, Unit 2; April 5 To 8, 2012
- FSAR Section 1.3; General Design Criteria; UFSAR 2010
- FSAR Section 4.1; Reactor Coolant System – Design Basis; UFSAR 2008
- FSAR Section 6.5; Leakage Detection Systems; UFSAR 2008
- IT 115; Instrument Air Valves (Quarterly) Unit 2; Completed May 18, 2012
- NP 10.3.78; On-Line Safety Assessment; Revision 27
- OI 55; Primary Leak Rate Calculation; Performed March 16, 2012
- OM 3.26; Use Of Dedicated / Assigned Operators; Revision 15
- Operational Decision Making; Increased 2P-1B, RCP, No. 2 Seal Leakage Transients; Revised April 13, 2012
- Station Log; April 6 To 7, 2012; May 18, 2012
- Station Log; April 8, 2012
- TS 87; Primary Auxiliary Building Ventilation System Monthly Checks; Completed April 10, 2012

#### 1EP6 Emergency Preparedness

- EN 47863; Alert Declared Due To Toxic Gas Build Up Following An Emergency Diesel Generator Test Run; April 25, 2012
- EPIP 1.1; Course Of Actions; Revision 63
- EPIP 1.2; Emergency Classification; Revision 50
- EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 8

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

- AR01696182; Lack Of 50.59 Screening For EPU LOCA Dose Calculations
- AR01724172; Discrepancy In F-13 Filter Efficiency Tested In HPIP 11
- AR01779750; 2Q12 Green NCV – TSC Ventilation Filter Testing
- Calculation No. 129187-M-0112; Technical Support Center Direct Shine Dose Due To A Loss Of Coolant Accident Following Extended Power Up-Rate And Using Alternative Source Term Methodology; Revision 1
- Calculation No. 13612; Power/RP, PR-001; Calculate The Doses And Dose Rates In The Technical Support Center Due To Intake And In-Leakage Following A LOCA, Assuming 4 Inch Deep Activated Charcoal Beds Are Installed; May 19, 1980
- HPIP 11.50; Filter Testing; Revisions 20 And 21
- HPIP 11.52; HEPA (High Efficiency Particulate Absolute) And Charcoal Filter Administrative Control; Revisions 3 And 4
- HPIP 11.54; Control Room F-16 Filter Testing; Revisions 17 And 18

## 4OA1 Performance Indicator Verification

- 1Q/2012 Performance Indicators; Reactor Coolant System Leakage, Units 1 And 2
- 2Q/2011 Performance Indicators; Reactor Coolant System Leakage, Units 1 And 2
- 3Q/2011 Performance Indicators; Reactor Coolant System Leakage, Units 1 And 2
- 4Q/2011 Performance Indicators; Reactor Coolant System Leakage, Units 1 And 2
- Gamma Spectrum Analysis; Sample Date February 29, 2012
- H33; Performance Indicator Reporting; Revision 11
- Log Entries Report; Various Dates From April 9, 2011 To March 14, 2012
- Monthly Effluent Release Offsite Dose Summary; December 2011
- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6; October 2009
- NP 5.2.16; NRC Performance Indicators; Completed March 28 And March 2, 2012
- QF-0445; NRC/INPO/WANO Data Collection And Submittal Forms; 3<sup>rd</sup> Quarter 2011
- QF-0445; NRC/INPO/WANO Data Collection And Submittal Forms; 4<sup>th</sup> Quarter 2011
- ROP Parent Process Data Review, Unit 1; 2<sup>nd</sup> Quarter 2011 To 1<sup>st</sup> Quarter 2012
- RPIP 1013; Occupational Radiation Safety Performance Indicators; Revision 5
- RPIP 3332; Dose Equivalent Iodine-131; Revision 10
- RPIP 3382; Reactor Coolant Sample Preparation And Analysis; Revision 13
- RPIP 4521; Monthly Effluent Release Offsite Dose Calculations; Revision 7

## 4OA2 Identification and Resolution of Problems

- ACE 01670172; Licensed Operator Had Expired Respirator Qualifications
- ANSI N18-1-1971; Selection And Training Of Nuclear Power Plant Personnel; March 8, 1971
- ANSI/ANS-3.4-1996; Medical Certification And Monitoring Of Personnel Requiring Operator Licenses For Nuclear Power Plants; February 7, 1996
- AR01670172; Challenge To Shift Staffing Due To Expired Respirator Quals
- AR01747094; Documentation Error For Proficiency Watch
- AR01747333; Alignment Question With Proficiency Watch Procedures
- AR01761339; Med- Changes Made To Respiratory Protection Program
- AR01763219; Individual Did Not Show Up For Fit Tests
- AR01764968; Operations Respiration Qual Check Shortcomings
- AR01765896; Individual Respirator Fit Tested Not IAW Procedure
- AR01772196; Definition Of Annual In Site Programs Needs Review

- AR01772226; Four Watch Restrictions Due To Respirator Fit Test Inserts
- AR01772307; CR 01764968 Completed With Incomplete Actions
- AR01779753; 2Q12 NRC URI – Modification Turnover Process
- ES-605; License Maintenance, License Renewal Applications, And Requests For Administrative Reviews And Hearings
- FPER; Fire Protection Evaluation Report; Revision 12
- FSAR Section 11.4; Radiation Protection Program; UFSAR 2010
- NP 1.1.4; Use And Adherence Of Procedures; Revision 27
- NP 2.1.1; Conduct Of Operations; Revision 13
- NP 4.2.32; Respiratory Protection Program; Revision 7
- NRC Information Notice 95-23; Control Room Staffing Below Minimum Regulatory Requirements; April 24, 1995
- NRC Information Notice 97-66; Failure To Provide Special Lenses For Operators Using Respirator Or Self-Contained Breathing apparatus During Emergency Operations; August 20, 1997
- NUREG/CR-6838; Technical Basis For Regulatory Guidance For Assessing Exemption Requests From The Nuclear Power Plant Licenses Operator Staffing Requirements Specified In 10 CFR 50.54(m); February 2004
- OM 1.1; Conduct Of Plant Operations, PBNP Specific; Revision 36
- OM 3.1; Operations Shift Staffing Requirements; Revision 16
- OM 3.10; Operations Personnel Assignments And Scheduling; Revision 31
- OM 3.9; Watchstation Status Checks And Watchstander Turnover Guides; Revision 17
- OP-AA-100-1000; Conduct Of Operations; Revision 1
- Operations Department Clock Reset – Yellow Sheet, CAP 01670172; Completed July 25, 2011
- PBN IS TP; Training Program Description; Revision 14
- PBN LOC TPD; Training Program Description; Completed September 12, 2011
- Plateau Curricula Status List; As Of May 9, 2012
- Unit Staff Qualifications 5.3; Unit – Amendment No. 211, Unit 2 – Amendment No. 216
- WO Package 40118739-01; Verify Operator's Respiratory Qualifications

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

- 0-SOP-G02-001; Maintenance Operation For EDG G-02; Completed April 26, 2012
- 1ICP 10.046; Check Of Rod Control System Redundant Power Supplies; Revision 1
- 2F3201 Forced Outage Critical Path; June 27, 2012
- 2F32HS Forced Outage Issues And Actions
- 2-SOP-19KV-001; Transformers 2X-01/2X-02 Outages And Electrical Operations; Completed April 11, 2012
- ACE 01640098-01; AFI In The Area Of Equipment Reliability During January 2011 INPO E&A; Revision 3
- Agenda For Operations Burden Review Meeting; May 30, 2012
- AR01640098; 2011 INPO Eval AFI ER.2-1: PMS Of Some Electrical Components
- AR01724425; Controller Not Controlling At Set Flow Rate
- AR01743615; Increase In Operations Requested Emergent PCRS
- AR01752251; Control Room Deficiencies Changed From White To Yellow
- AR01757638; Unanticipated Axial Flux Response During Load Swing
- CE For AR01750489; Progress On INPO AFI ER.2-1; April 12, 2012
- Daily Status Report; June 29, 2012
- EC 274720; 2F52-142; A And C Phase Grid Side Jumpers

- EN48053; Unit 2 Manual Reactor Actuated Due To Indications Of 100% Load Rejection; June 27, 2012
- EN47896; Licensed Operating Supervisor Tested Positive For A For-Cause Test For Alcohol; May 3, 2012
- ER.2-1 Strength Plan
- Incident Investigation And Post-Trip Reviews; Completed June 27, 2012
- NARS Forms; April 25, 2012
- Nextera Energy Life Cycle Management Plan; November 26, 2012
- NP 2.1.4; Operator Burdens; Revision 14
- NPM 2012-0111; Internal Correspondence From D. Weber; Subject: Operator Burden Review Board Meeting Minutes; April 4, 2012
- OI 38; Circulating Water System Operation; Revision 56
- OP 1C; Startup To Power Operation Unit 2; Revision 24
- OP 3A Unit 1; Power Operation To Hot Standby Unit 1; Revision 9
- OP 3B; Reactor Shutdown; Revision 43
- OP-AA-108; Oversight And Control Of Operator Burdens; Revision 0
- Open POD List; Indicator OX-14; April 2012
- PBNP Outage Status Report; June 29, 2012
- PBNP Shutdown Safety Assessment And Fire Condition; Unit 2; June 29, 2012
- PBNP Subcomponent PM Optimization Charter; April 10, 2012
- PBNP Unit 2 Forced Outage List; As Of April 17, April 19, 2012
- PBNP Unit 2; Forced Outage List; As Of June 29, 2012
- PFNP U2 cycle 32 F52-142 Repair Mode; April 13, April 17, 2012
- POD; May 2, 2012
- Response to NRC Questions Received; Dated June 11, 2012
- Safety Monitor, Unit 1; June 27 To 28, 2012
- Safety Monitor, Unit 2; June 27, 2012
- Station Log; April 19 To April 21, 2012
- Station Log; June 27 To June 29, 2012
- Station Log; Various Dates From April 8 To April 27, 2012
- Unit 2 Planned Outage Shift Coverage; Begins April 19, 2012
- Westinghouse Simulator Handbook; Summary Of Protection Grade Interlocks; Revision 1107
- WO 40106974-01; Unit 2 345 KV Output Breaker; April 12, 2012

#### 4OA5 Other Activities

- AR01380059; NEI Buried Piping Initiative; January 11, 2010
- AR01660378; 2N-31 SRNI HVPS Failed High
- AR01687256; June 13 Unit 2 Rx Trip LER/PI Data Needs Revision
- AR01762573 Buried And Underground Piping And Tanks Inspection; May 2, 2012
- ENG-ER-AA-102; Buried Piping Program Manager Qualification Guide; Revision 1
- ER-AA-102; Buried Piping Program; Revision 3
- ER-AA-102-1000; Buried Piping Examination Procedure; Revision 1
- LER 05000301/2011-004-00; Automatic Reactor Trip During Startup Physics Testing Due To Source Range Detector Failure; July 25, 2011
- LER 05000301/2011-004-01; Automatic Reactor Trip During Startup Physics Testing Due To Source Range Detector Failure; October 13, 2011
- LR-AMP-018-BSMON; Buried Services Monitoring Program Basis Document For License Renewal; Revision 0
- PBNP Buried Piping Inspection Plan; Revision 1
- PBSA-12-21; Quick Hit Assessment Report; March 29, 2012

- Program Health Report; Buried Piping; January 1 To March 31, 2012
- Program Health Report; Cathodic Protection; January 1 To March 31, 2012
- RCA 01660378; Unit 2 Reactor Trip Due To 2N31 High Level Trip; July 26 And July 14, 2011
- SEM 8.0; Buried Services Monitoring Program; Revision 0

## LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
ALARA	As-Low-As-Is-Reasonably-Achievable
AOP	Abnormal Operating Procedure
ASME	American Society of Mechanical Engineers
BOL	Beginning Of Life
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
EPU	Extended Power Uprate
FP	Fire Protection
FSAR	Final Safety Analysis Report
FW	Feedwater
HEPA	High Efficiency Particulate Air
IP	Inspection Procedure
IR	Inspection Report
kV	Kilovolt
LER	Licensee Event Report
MFIV	Main Feedwater Isolation Valve
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
OWA	Operator Workaround
PAB	Primary Auxiliary Building
PARS	Publicly Available Records System
PI	Performance Indicator
PMT	Post-Maintenance Testing
RCS	Reactor Coolant System
RHR	Residual Heat Removal
SDP	Significance Determination Process
SI	Safety Injection
SR	Safety-Related
SRM	Source Range Monitor
SSC	Structure, System, and Component
SW	Service Water
TDAFW	Turbine-Driven Auxiliary Feedwater
TEDE	Total Effective Dose Equivalent
TI	Temporary Instruction
TS	Technical Specification
TSC	Technical Support Center
URI	Unresolved Item
WO	Work Order



L. Meyer

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Sincerely,

**/RA/**

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

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SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2  
NRC INTEGRATED INSPECTION REPORT 05000266/2012003 AND  
05000301/2012003

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