

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

November 6, 2013

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 05000266/2013004; 05000301/2013004

Dear Mr. Meyer:

On September 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on October 3, 2013, with you and other members of your staff.

Based on the results of this inspection, two NRC-identified findings of very low safety significance were identified. The findings involved violations of NRC requirements. Additionally, two licensee-identified violations are listed in Section 4OA7 of this report. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as non-cited violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of this NCV, 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

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and 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 Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/**RA**/

Jamnes L. Cameron Chief Branch 6 Division of Reactor Projects

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

- Enclosure: Inspection Report 05000266/2013004; 05000301/2013004 w/Attachment: Supplemental Information
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: License Nos:	05000266; 05000301 DPR-24; DPR-27
Report No:	05000266/2013004; 05000301/202013004
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	Two Rivers, WI
Dates:	July 1, 2013, through September 30, 2013
Inspectors:	 D. Betancourt, Acting Senior Resident Inspector M. Thorpe-Kavanaugh, Resident Inspector K. Barclay, Resident Inspector J. Rutkowski, Project Engineer V. Myers, Health Physicist J. Steffes, Reactor Engineer P. Smagacz, Reactor Engineer
Approved by:	Jamnes L. Cameron Branch 6 Division of Reactor Projects

SUMMARY O	F FINDINGS	1
REPORT DET	TAILS	3
Summary o	f Plant Status	3
1. REAC	CTOR SAFETY	3
1R04	Equipment Alignment (71111.04)	3
1R05	Fire Protection (71111.05)	4
1R11	Licensed Operator Requalification Program (71111.11)	6
1R12	Maintenance Effectiveness (71111.12)	7
1R13	Maintenance Risk Assessments and Emergent Work Control (71111.13)	8
1R15	Operability Determinations and Functional Assessments (71111.15)	8
1R18	Plant Modifications (71111.18)	11
1R19	Post-Maintenance Lesting (71111.19)	12
TR22	Surveillance Testing (71111.22)	13
2. RADI	ATION SAFETY	14
2RS5	Radiation Monitoring Instrumentation (71124.05)	14
2RS7	Radiological Environmental Monitoring Program (71124.07)	15
2RS8	Radioactive Solid Waste Processing and Radioactive Material Handling,	
	Storage, and Transportation (71124.08)	18
		23
4041	Performance Indicator (PI) Verification (71151)	23
4047	Identification and Resolution of Problems (71152)	24
40A3	Follow-Up of Events and Notices of Enforcement Discretion (71153)	28
40A6	Meetings Including Exit	
40A7	Licensee-Identified Violations	30
SUPPLEMEN	TAL INFORMATION	1
KEY POINT	S OF CONTACT	1
LIST OF ITI	EMS OPENED, CLOSED AND DISCUSSED	2
	CLIMENTS REVIEWED	2
		3
LIST OF AC	RONYMS USED	17

TABLE OF CONTENTS

SUMMARY OF FINDINGS

Integrated Inspection Report (IR) 05000266/202013004, 05000301/2013004; 07/01/2013 – 09/30/2013; Point Beach Nuclear Plant, Units 1 & 2; Operability Evaluations; and Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green findings were identified by the inspectors. The findings were considered non-cited violations (NCVs) of NRC regulations. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Components Within the Cross Cutting Areas" dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated January 28, 2013. 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: Barrier Integrity

<u>Green</u>. The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, for the licensee's failure to follow procedure EN-AA-203-1001, "Operability Determinations/Functionality Assessments." Specifically, when the Unit 1 main steam line A release monitor, 1RE-232, went into high alarm due to high ambient temperatures, the licensee's immediate functionality determination failed to evaluate the potential impact of the degraded state of the radiation monitor in the emergency plan. Additionally, a functionality assessment was not requested as specified by the procedure. This issue was entered into the licensee's corrective action program (CAP) as action request (AR) 01902921.

The inspectors determined the finding to be more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, the failure to perform operability and functionality evaluations, and to recognize conditions that could render equipment inoperable, had the potential to lead to a more significant concern. The inspectors determined that the finding was associated with the Barrier Integrity Cornerstone, because the main steam line radiation monitor provides reasonable assurance that physical design barriers protect the public from radionuclide releases. The inspectors determined the finding to be of very low safety significance in accordance with IMC 0609, Appendix A, Exhibit 1, because they answered "No" to the guestions under the Barrier Integrity screening questions. The inspectors concluded that this finding has a cross-cutting aspect in the area of human performance, decision making, because the licensee failed to use conservative assumptions in decision making after the receipt of the unexpected high alarm on 1RE-232 and did not request a functionality assessment to ensure that the condition and proposed actions were fully understood. Specifically, operations personnel did not request a documented evaluation to support understanding why the alarming monitor did not affect the functionality of the instrument as it related to the instrument's emergency plan functions (H.1 (b)). (Section 1R15)

Cornerstone: Public Radiation Safety

 <u>Severity Level IV</u>: The inspectors identified a finding of very low safety significance (Green) and an associated Severity Level IV (SL-IV) NCV of 10 CFR 50.71(e), "Maintenance of Records, Making of Reports," for the licensee's failure to comply with the requirements to periodically update the Final Safety Analysis Report (FSAR) to include an accurate description of the site's solid waste management system and radiation monitoring system as a result of modifications made to the site. This issue was entered into the licensee's CAP as AR01898640 and AR01898643.

The inspectors determined the finding to be more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, this could lead to a more significant safety concern because future changes to the facility, procedures, and programs would not be able to consider the licensing basis information that was removed or never inserted. The finding was determined to be of very low safety significance (Green) in accordance with IMC 0609, Appendix D, "Public Radiation Safety Cornerstone Significance Determination Process," because it involved radioactive material control but did not result in public exposure greater than 5 mrem [millirem]. Additionally, using IMC 0612, Appendix B, "Issue Screening," the inspectors determined that the violation of 10 CFR 50.71(e) could be dispositioned using traditional enforcement because it had the potential to impact the NRC's ability to perform its regulatory function. The violation was determined to be a SL-IV violation using the NRC's Enforcement Policy, Section 6.1, because the inaccurate information was not used to make an unacceptable change to the facility procedures. The inspectors concluded that this finding did not have an associated cross-cutting aspect. (Section 2RS8)

B. Licensee-Identified Violations

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

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit operated at or near full power throughout the quarter, with the exception of a downpower to 85 percent that occurred on August 7, 2013, at the request of the transmission company following severe weather in the area. The unit returned to full power on August 8, 2013. An additional downpower to 20 percent occurred on August 18, 2013, due to a loss of cooling to the 'C' phase of the main power transformer 1X-01. On August 21, 2013, Unit 1 returned to full power following repairs.

Unit 2

The unit operated at or near full power throughout the quarter, with the exception of a downpower to 67 percent that occurred on August 7, 2013, at the request of the transmission company following severe weather in the area. The unit returned to full power the same day. An additional downpower to 60 percent power occurred on August 14, 2013, due to a steam leak on the warm up line of the "A" main feedwater pump. On August 15, 2013, Unit 2 returned to full power following repairs.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

- .1 Quarterly Partial System Walkdowns
 - a. Inspection Scope

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

- motor-driven auxiliary feedwater (AFW) pump '2P-53' following an oil change (Unit 2);
- safety injection (SI) train B post testing (Unit 2); and
- containment spray train B post testing (Unit 2).

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were 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, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly

identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

During the week of September 16, 2013, the inspectors performed a complete system alignment inspection of the service water system to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

- 1R05 Fire Protection (71111.05)
 - .1 <u>Routine Resident Inspector Tours</u> (71111.05Q)
 - a. Inspection Scope

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

- fire zone 151 (SI room);
- fire zone 552 (service water pump room);
- fire zone 308 (G-01 emergency diesel generator (EDG) room); and
- fire zone 309 (G-02 EDG room).

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

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

b. Findings

No findings were identified.

- .2 Annual Fire Protection Drill Observation (71111.05A)
- a. Inspection Scope

On September 3, 2013, the inspectors observed a fire brigade activation on a simulated fire in warehouse three. Based on this observation, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief; and took appropriate corrective actions. Specific attributes evaluated were:

- proper wearing of turnout gear and self-contained breathing apparatus;
- proper use and layout of fire hoses;
- employment of appropriate fire-fighting techniques;
- sufficient firefighting equipment brought to the scene;
- effectiveness of fire brigade leader communications, command, and control;
- search for victims and propagation of the fire into other plant areas;
- smoke removal operations;
- utilization of pre-planned strategies;
- adherence to the pre-planned drill scenario; and
- drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted one annual fire protection inspection sample as defined in IP 71111.05-05.

b. Findings

No findings were identified.

- 1R11 Licensed Operator Regualification Program (71111.11)
 - .1 <u>Resident Inspector Quarterly Review of Licensed Operator Regualification</u> (71111.11Q)
 - a. Inspection Scope

On August 7, 2013, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and 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 requalification program simulator sample as defined in IP 71111.11.

b. Findings

No findings were identified.

.2 <u>Resident Inspector Quarterly Observation of Heightened Activity or Risk</u> (71111.11Q)

a. Inspection Scope

On August 15, 2013, the inspectors observed Unit 2 power ascension following a downpower to 60 percent due to the failure of a gasket on the warm-up line of the main feedwater pump A. 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;
- correct use and implementation of procedures;
- control board (or equipment) 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 <u>Maintenance Effectiveness</u> (71111.12)

.1 Routine Quarterly Evaluations

a. Inspection Scope

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

- problem-oriented approach for the 345kV [kilovolt] system; and
- review of 10 CFR 50.65(a)(3) periodic evaluation.

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 two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 <u>Maintenance Risk Assessments and Emergent Work Control</u> (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

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

- risk management during week of July 15, 2013;
- risk management during week of August 5, 2013;
- risk management during week of September 16, 2013;
- component cooling water (CCW) heat exchanger 1HX-12A, flushing of service water side on September 25, 2013; and
- risk management during instrument and service air compressor swaps.

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

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

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

- .1 Operability Evaluations
 - a. Inspection Scope

The inspectors reviewed the following issues:

- functionality of transformer 2X-03;
- operability of Unit 1 and Unit 2 control rod shroud fans;
- FSAR Chapter 14.1.6, "Reduction in Feedwater Enthalpy Analysis," not performed for power uprate conditions;
- radiation monitor operation during high temperatures;
- battery charger operation during severe weather; and
- operability of the Unit 1 and Unit 2 containment dome truss [partial].

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

This operability inspection constituted five samples and one partially completed sample as defined in IP 71111.15-05.

b. Findings

Failure to Follow Operability Evaluation Process Following Radiation Monitor Failure

<u>Introduction</u>: The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, due to the licensee's failure to follow procedure EN-AA-203-1001, "Operability Determinations/Functionality Assessments." Specifically, when the Unit 1 main steam line release monitor A went into high alarm due to high ambient temperatures, the licensee's immediate functionality determination failed to evaluate the effect the impact of the failure and degraded state of the radiation monitor in the emergency plan. Following prompting by the inspectors, the licensee revised the immediate operability determination and requested a functionality assessment to ensure that all emergency plan equipment was properly evaluated for continued functionality.

<u>Description</u>: During routine condition report reviews, the inspectors noted that on July 19, 2013, operations personnel initiated AR01892313 to document a condition where high ambient temperatures were causing elevated radiation monitor readings. Specifically, the condition report identified that the Unit 1 main steam line release monitor A (1RE-232) went into alarm during hot weather, and that this radiation monitor was used for entry into emergency action level (EAL) RS1.1 and RG1.1. According to the condition report, if the high temperatures existed and a release was in progress, the radiation monitor would alarm early to indicate that entry conditions into an EAL were met, when the entry conditions were not actually met. The condition report concluded that since the current setpoints were conservative, there was no effect on the operability or functionality of plant components.

The inspectors reviewed procedure PI-AA-204, "Condition Identification and Screening Process," and found that functionality assessments "should be performed for SSCs not described in TS, but which are safety-related or quality-related and perform current licensing basis functions." Additionally, PI-AA-204 clarifies that SSCs warranted

functionality assessments because they perform functions described in the emergency preparedness plan. The procedure further stated that review of the condition for operability, past operability, and functionality was required per fleet procedure EN-AA-203-1001, "Operability Determinations/Functionality Assessments."

The inspectors reviewed EN-AA-203-1001, and found that Step 4.1.1 stated, "whenever the ability of an SSC to perform its specified function is called into question, operability/functionality should be established by a documented examination of the deficiency using the guidance provided." Step 4.1.11 goes on to state that "functionality assessment should evaluate and determine whether or not the affected SSC can accomplish its specified current licensing basis function and uphold associated programmatic requirements under the identified condition, or if a compensatory measures are required to be implemented to maintain the SSC's functionality."

Based on this review, the inspectors questioned the licensee regarding the radiation monitor's ability to function as required to support the licensee's emergency preparedness plan. The inspectors concluded that the procedural guidance required a functionality assessment be performed for 1RE-232. In response to the inspectors' questions, on August 13, 2013, the licensee initiated a functionality assessment of 1RE-232. On August 23, 2013, the licensee completed a functionality assessment of 1RE-232, which concluded that the monitor was functional because it could provide trend data for indicating a ruptured steam generator, could be used to estimate offsite doses, and could be used to make EAL declarations. The inspectors concluded that additional information provided in the functionality assessment was needed to address the radiation monitor's ability to function as required to support the licensee's emergency preparedness plan.

<u>Analysis</u>: The inspectors determined that the licensee's failure to evaluate the effect of high ambient temperatures on the ability of the radiation monitor to function such that EALs could be declared in an appropriate manner as required by EN-AA-203-1001 was a performance deficiency warranting further review.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to perform functionality assessments and recognize conditions that could render equipment inoperable had the potential to lead to a more significant safety concern; in this case, the early detection of conditions warranting the declaration of an EAL. The inspectors determined that the finding was associated with the Barrier Integrity Cornerstone because the main steam line radiation monitore provides reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events such as a steam generator tube rupture. The inspectors determined that the finding could be evaluated using IMC 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012; and determined that IMC 0609, Appendix A, Exhibit 1, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, could be used to assess the significance. The finding was determined to be of very low safety significance (Green), because the inspectors answered "No" to the Barrier Integrity screening questions.

The inspectors determined that the finding has a cross-cutting aspect in the area of human performance, decision-making, because the licensee failed to use conservative assumptions in decision making assumptions when the receipt of the unexpected high alarm was received on 1RE-232 and did not request a functionality assessment to ensure that the condition and propose actions were fully understood. Specifically, operations did not request a documented evaluation to support understanding why the alarming monitor did not affect the functionality of the instrument as it related to the instrument's emergency plan functions (H.1(b)).

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion V, requires, in part, that activities affecting quality be prescribed and accomplished by procedures appropriate to the circumstance, and shall be accomplished in accordance with those instructions and procedures. The licensee implemented the operability determination process (an activity affecting quality) using procedure EN-AA-203-1001, "Operability Determination/Functionality Assessments," Revision 9. Step 4.1.1 of EN-AA-203-1001 states "whenever the ability of a (structure, system or component) to perform its specified function is called into question, operability/functionality assessment should by a documented examination of the deficiency." "(F)unctionality assessment should evaluate and determine whether or not the affected SSC can accomplish its specified current licensing basis function and uphold associated programmatic requirements under the identified condition."

Contrary to the above, on July 19, 2013, following the failure of the Unit 1 main steam line release monitor A due to hot ambient temperatures, the licensee failed to perform a functionality assessment to evaluate the impact of the failure and degraded state of the radiation monitor on the emergency plan as required by procedure EN-AA-203-1001, Step 4.1.

Because this violation was of very low safety significance and it was entered into the licensee's CAP as AR01902921, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2013004-01; 05000301/2013004-01, Failure to Follow Operability/Functionality Evaluation Process Following Radiation Monitor Failure).

- 1R18 Plant Modifications (71111.18)
 - .1 Plant Modifications
 - a. Inspection Scope

The inspectors reviewed the following modification:

• Engineering Change 278757, "Install a New Weather Hood Over the Existing G-05 Air Intake."

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the FSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and

that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one 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 activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Post Maintenance Testing (PMT) of service water pump P-32C following maintenance;
- PMT of instrument inverter 1DY-04 (Unit 1);
- PMT of main steam line monitor 1RE-232 (Unit 1);
- PMT of power range nuclear instrument N-43 (Unit 2);
- PMT of radiation monitor 2RE-229 (Unit 2);
- PMT of accident fan motor-operated valve 1SW-2907 (Unit 1); and
- PMT of AFW pump 2P-29 following gasket 2AF-2002 replacement (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 post-maintenance tests 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

No findings were identified.

- 1R22 <u>Surveillance Testing</u> (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:

- residual heat removal quarterly valve test (IT-04) train A (Unit 2) (routine);
- containment accident fan cooler (IT-34) surveillance (Unit 2) (routine);
- quadrant power tilt ratio (2-TS-RE-004) surveillance test (Unit 2) (routine);
- service water pump P-32A (IT-07) monthly surveillance test (inservice testing); and
- reactor coolant system (RCS) leakage (Unit 2) (RCS leakage).

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

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were 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 system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples; one inservice testing sample, and one RCS leak detection inspection sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety and Public Health Safety

2RS5 Radiation Monitoring Instrumentation (71124.05)

The inspection activities supplement those documented in IRs 05000266301/2012002 and 05000266301/2013002, and constituted one complete sample as defined in IP 71124.05-05.

- .1 Inspection Planning (02.01)
 - a. Inspection Scope

The inspectors reviewed procedures that govern instrument source checks and calibrations, focusing on instruments used for monitoring transient high radiological conditions, including instruments used for underwater surveys. The inspectors reviewed the calibration and source check procedures for adequacy and as an aid to smart sampling.

b. <u>Findings</u>

No findings were identified.

.2 <u>Calibration and Testing Program</u> (02.03)

Whole Body Counter

a. Inspection Scope

The inspectors reviewed the methods and sources used to perform whole body count functional checks before daily use of the instrument and assessed whether check sources were appropriate and aligned with the plant's isotopic mix.

The inspectors reviewed whole body count calibration records since the last inspection and evaluated whether calibration sources were representative of the plant source term and that appropriate calibration phantoms were used. The inspectors looked for anomalous results or other indications of instrument performance problems.

b. Findings

No findings were identified.

.3 Post-Accident Monitoring Instrumentation

a. Inspection Scope

Inspectors selected containment high-range monitors and reviewed the calibration documentation since the last inspection.

The inspectors assessed whether an electronic calibration was completed for all range decades above 10 rem/hour, and whether at least one decade at or below 10 rem/hour was calibrated using an appropriate radiation source.

The inspectors assessed whether calibration acceptance criteria were reasonable; accounting for the large measuring range and the intended purpose of the instruments.

The inspectors selected two effluent/process monitors that were relied on by the licensee in its emergency operating procedures as a basis for triggering emergency action levels and subsequent emergency classifications, or to make protective action recommendations during an accident. The inspectors evaluated the calibration and availability of these instruments.

The inspectors reviewed the licensee's capability to collect high-range, post-accident iodine effluent samples.

As available, the inspectors observed electronic and radiation calibration of these instruments to assess conformity with the licensee's calibration and test protocols.

b. Findings

No findings were identified.

2RS7 Radiological Environmental Monitoring Program (71124.07)

This inspection constituted one complete sample as defined in IP 71124.07-05.

.1 <u>Inspection Planning</u> (02.01)

a. Inspection Scope

The inspectors reviewed the annual radiological environmental operating reports and the results of any licensee assessments since the last inspection to assess whether the Radiological Environmental Monitoring Program (REMP) was implemented in accordance with the TSs and Offsite Dose Calculation Manual (ODCM). This review included reported changes to the ODCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, inter-laboratory comparison program, and analysis of data.

The inspectors reviewed the ODCM to identify locations of environmental monitoring stations.

The inspectors reviewed the FSAR for information regarding the Environmental Monitoring Program and meteorological monitoring instrumentation.

The inspectors reviewed audits and technical evaluations performed on the vendor laboratory program.

The inspectors reviewed the annual Effluent Release Report and the 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," report to determine if the licensee was sampling, as appropriate, for the predominant and dose-causing radionuclides likely to be released in effluents.

b. Findings

No findings were identified.

- .2 Site Inspection (02.02)
- a. Inspection Scope

The inspectors walked down select air sampling stations and thermoluminescent dosimeter (TLD) monitoring stations to determine where they were located, as described in the ODCM, and to determine the equipment material condition. Consistent with smart sampling, the air sampling stations were selected based on the locations with the highest X/Q, D/Q wind sectors and TLDs were selected based on the most risk-significant locations (e.g., those that have the highest potential for public dose impact).

For the air samplers and TLDs selected, the inspectors reviewed the calibration and maintenance records to evaluate whether they demonstrated adequate operability of these components. Additionally, the review included the calibration and maintenance records of select composite water samplers.

The inspectors assessed whether the licensee had initiated sampling of other appropriate media upon loss of a required sampling station.

The inspectors observed the collection and preparation of environmental samples from different environmental media (e.g., ground and surface water, milk, vegetation,

sediment, and soil,) as available, to determine if environmental sampling was representative of the release pathways as specified in the ODCM and if sampling techniques were in accordance with procedures.

Based on direct observation and review of records, the inspectors assessed whether the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the FSAR, NRC Regulatory Guide 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and licensee procedures. The inspectors assessed whether the meteorological data readout and recording instruments in the control room and, if applicable, at the tower were operable.

The inspectors evaluated whether missed and/or anomalous environmental samples were identified and reported in the annual environmental monitoring report. The inspectors selected events that involved a missed sample, inoperable sampler, lost TLD, or anomalous measurement to determine if the licensee identified the cause and implemented corrective actions. The inspectors reviewed the licensee's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection) and reviewed the associated radioactive effluent release data that was the source of the released material.

The inspectors selected SSCs that involve, or could reasonably involve, licensed material for which there is a credible mechanism for licensed material to reach ground water and assessed whether the licensee implemented a sampling and monitoring program sufficient to detect leakage of these SSCs to groundwater.

The inspectors evaluated whether records, as required by 10 CFR 50.75(g), of leaks, spills, and remediation since the previous inspection were retained in a retrievable manner.

The inspectors reviewed any significant changes made by the licensee to the ODCM as the result of changes to the land census, long-term meteorological conditions (three-year average), or modifications to the sampler stations since the last inspection. They reviewed technical justifications for any changed sampling locations to evaluate whether the licensee performed the reviews required to ensure the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The inspectors assessed whether the appropriate detection sensitivities, with respect to TS/ODCM, where used for counting samples (i.e., the samples meet the TS/ODCM required lower limits of detection). The licensee uses a vendor laboratory to analyze the REMP samples, so the inspectors reviewed the results of the vendor's Quality Control Program, including the interlaboratory comparison, to assess the adequacy of the vendor's program.

The inspectors reviewed the results of the licensee's Interlaboratory Comparison Program to evaluate the adequacy of environmental sample analyses performed by the licensee. The inspectors assessed whether the interlaboratory comparison test included the media/nuclide mix appropriate for the facility. If applicable, the inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the REMP.

b. Findings

No findings were identified.

- .3 Identification and Resolution of Problems (02.03)
- a. Inspection Scope

The inspectors assessed whether problems associated with the REMP were identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. Additionally, they assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involved the REMP.

b. Findings

No findings were identified.

2RS8 <u>Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and</u> <u>Transportation</u> (71124.08)

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

- .1 Inspection Planning (02.01)
- a. Inspection Scope

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

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

b. Findings

No findings were identified.

- .2 Radioactive Material Storage (02.02)
- a. Inspection Scope

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

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

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

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

b. Findings

No findings were identified.

- .3 Radioactive Waste System Walkdown (02.03)
- a. Inspection Scope

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

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

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

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

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

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

b. Findings

<u>Introduction</u>: The inspectors identified a finding of very low safety significance (Green) and an associated SL-IV, NCV of 10 CFR 50.71(e), "Maintenance of Records, Making of Reports," for the licensee's failure to comply with the requirements to periodically update the FSAR to include an accurate description of the site's solid waste management system and radiation monitoring system as a result of modifications made to the site.

<u>Description</u>: The solid waste management system section of the FSAR describes how solid radioactive waste is processed and stored onsite. The radiation monitoring system section of the FSAR describes how various locations (including radioactive waste handling and storage locations) are monitored for changes in radiological conditions via radiation detection instrumentation. The pertinent part of the radiation monitoring system section of the FSAR states, in part, that "all waste handling and storage facilities are contained and equipment is designed so that accidental releases directly to the atmosphere are monitored".

In 1989, a Safety Evaluation Report (SER) was conducted to allow for the storage of low-level radioactive waste in the Steam Generator Storage Facility. In 1996, another SER was performed to allow for the storage of radioactive material in the Steam Generator Storage Facility. Both of these SERs indicated that changes needed to be made to the FSAR. These changes included updating storage locations for radioactive waste and to update the description of the Radiation Monitoring System to show that radioactive waste stored within the Steam Generator Storage Facility was not monitored by the Radiation Monitoring System. The current FSAR did not include these changes.

In 2012, another SER involving radioactive waste was performed in order to construct a warehouse to store radioactive waste/material. Although the FSAR was updated to include this warehouse as a radioactive waste storage area, the SER did not determine that the radiation monitoring system section of the FSAR applied. Consequently, the radiation monitoring system section of the FSAR was still not updated to indicate that various radioactive waste storage areas existed that were not monitored via the radiation monitoring system.

This issue was entered into the licensee's CAP as AR01898640 and AR01898643. Corrective actions include performing an apparent cause evaluation to determine why the current FSAR does not include appropriate changes.

<u>Analysis</u>: The inspectors determined that the licensee's failure to comply with the requirements to periodically update the FSAR to include an accurate description of the solid waste management system and radiation monitoring system was a performance deficiency warranting further review.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected, this could lead to a more significant safety concern. Specifically, future changes to the facility, procedures, and programs would not be able to consider the licensing basis information that was removed or never inserted. The finding was determined to be of very low safety significance (Green) in accordance with IMC 0609, Appendix D, "Public Radiation Safety Cornerstone SDP," dated February 12, 2008, because it involved radioactive material control but did not result in public exposure greater than 5 mrem.

The SDP, however, does not consider the regulatory process impact. Therefore, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the finding. The inspectors used IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, and determined that the violation of 10 CFR 50.71(e) could be dispositioned using traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. The violation was determined to be an SL-IV violation using Section 6.1 of the NRC's Enforcement Policy because the inaccurate information was not used to make an unacceptable change to the facility procedures.

The inspectors determined that the finding was not indicative of current plant performance and therefore no cross cutting aspect was assigned.

<u>Enforcement</u>: Title 10 CFR 50.71(e) requires, in part, that the licensee periodically update the FSAR originally submitted as part of the application for the operating license, to assure that the information included in the report contains the latest information developed. This submittal shall include the effects of all changes made in a facility or procedures as described in the FSAR.

Contrary to the above, the licensee failed to update the FSAR to assure that the information included in the report contained an accurate description of the solid waste management system and radiation monitoring system as a result of modifications made to the site.

The failure to update the FSAR as required by 10 CFR 50.71(e) is characterized as a finding of very low safety significance (Green) and as an associated SL-IV violation. This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was entered into the CAP as AR01898640 and AR01898643 to address recurrence (NCV 05000266/2013004-02; 05000301/2013004-02, Failure to Update FSAR for Radioactive Waste Storage Changes).

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- dry active waste;
- spent fuel pool waste; and
- primary resin.

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

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

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

b. Findings

No findings were identified.

- .5 <u>Shipment Preparation</u> (02.05)
- a. Inspection Scope

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

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

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

Due to the limited opportunities for direct observation, the inspectors reviewed the technical instructions presented to workers during routine training. The inspectors assessed whether the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

b. Findings

No findings were identified.

.6 <u>Shipping Records</u> (02.06)

a. Inspection Scope

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

- 11-070;
- 12-001;
- 12-033;
- 12-038; and
- 13-021.

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

b. Findings

No findings were identified.

- .7 Identification and Resolution of Problems (02.07)
- a. Inspection Scope

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

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

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

- 4OA1 Performance Indicator (PI) Verification (71151)
 - .1 Mitigating Systems Performance Index Heat Removal System
 - a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - Heat Removal Systems PI for Units 1 and 2 for the period from the third quarter 2012 through the second quarter 2013. To determine the accuracy of the PI data reported during those periods, 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, issue reports, event reports, and MSPI derivation reports for the period of July 2012 through June 2013, to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI heat removal system samples as defined in IP 71151-05.

b. Findings

Two licensee identified violations are documented in Section 4OA7.

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 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 (Discussed) Unresolved Item 05000266/2012002-07; 05000301/2012002-07) Past Reportability of Degraded Hazard Barrier Doors Not Performed

a. Inspection Scope

In IR 05000266/2012002, the inspectors identified an adverse trend regarding the lack of evaluation of operability of degraded hazard barrier doors. Specifically, the inspectors identified 85 action requests related specifically to door deficiencies, from the six-month period of September 2011 through March 2012. The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to perform an operability evaluation for the impact of deficient door to function as a high-energy line break (HELB) barrier, fire (safe shutdown) door, and flood barrier (NCV 05000266/2012002-08; 05000301/2012002-08, Failure to Perform Operability Evaluations as Required by Procedure). Additionally, the inspectors were unable to identify any technical assessment for reportability performed for the action requests identified. As such, the inspectors were concerned that these additional identified issues were potentially reportable for the previous three-year period and opened Unresolved Item (URI) 05000266-2012002-07; 05000301/2012002-07, Past Reportability of Degraded Hazard Barrier Doors Not Performed.

In response to the URI, the licensee generated AR01751811 to review the operability evaluations for doors with respect to the design aspects of HELB, fire (safe shutdown), flood barriers, and other features such as ventilation boundaries from September 2011 through March 2012. This review found 51 doors that were potentially affected. The inspector's questioned the licensee's corrective action as it focused on the preventative maintenance practices for doors, only reviewed a six-month period, and did not address

the potential reportability concerns identified by the URI. In response, the licensee determined that this condition report was focused on mechanical deficiencies and re-opened the condition report as part of AR01751804 to evaluate the reportability aspects for the previous three-year period.

The results of the licensee's review identified over 1,500 action requests that were potentially impacted. After further review, the licensee identified 184 action requests where the immediate operability failed to assess the impact of the identified deficiency on each door's ability to function as a HELB barrier, safe shutdown door, flood barrier, and other features, such as ventilation boundaries. These action requests were re-evaluated to determine the impacts and the licensee determined no reportability issues existed.

The inspectors reviewed the licensee's evaluation of the condition and independently performed an evaluation of the condition. The inspectors identified similar results regarding the number of doors impacted and the number of action requests lacking immediate operability determinations. The inspectors identified that of the 184 action requests, approximately 50 doors were specifically affected. The inspectors selected a sample of approximately 20 percent of affected doors for review for reportability. The inspectors selected the following doors for review, and independently reviewed the instances reported with respect to the design aspects of HELB, fire (safe shutdown), flood barriers, and other features such as ventilation boundaries: 3, 6, 9, 18, 19, 27, 28, 61, 65, and 70.

During this review, the inspectors determined that AR01376102 discussed a door that was propped open for an indeterminate period of time. When the inspectors reviewed the associated documentation, they found that the licensee concluded the door was functional. The inspectors questioned the reportability for the breach of this HELB/flood barrier as the impact on the safety-related equipment the door was protecting was not assessed in the initial action request nor was it assessed through the licensee's evaluation performed in response the URI. The inspectors questioned the HELB source and what the door was protecting. Through discussions with engineering staff, the inspectors determined the HELB source was main steam and the door was protecting both trains of the turbine-driven auxiliary feedwater pumps, both trains of the motor-driven auxiliary feedwater pumps, and the train A vital switchgear buses (1A05/1A06). Additionally, the inspectors found that a technical assessment for reportability was never initiated for this door, which would have evaluated the impact of the lack of barrier on the safety-related equipment.

At the conclusion of this inspection period, the licensee initiated AR01904265 to evaluate the impact of this condition on the above described safety-related equipment with a 30-day due date. This URI remains open pending the licensee's completion of this evaluation.

b. <u>Findings</u>

No findings were identified.

.4 <u>Selected Issue Follow-Up Inspection: Declining Trend in Problem Identification and</u> <u>Resolution</u>

a. Inspection Scope

On April 4, 2013, the licensee initiated AR01863113, "Three findings with cross-cutting aspect of P.1(c) [evaluations]," due to having three findings with the same cross-cutting aspect in the past four quarters. The three findings included:

- failure to submit LER 05000266/2012-003-00, "2B-04 Supply Breaker Installed with Incorrect Setpoint";
- failure to establish a procedure to implement wave run-up design features; and
- failure to incorporate industry experience into preventive maintenance programs for nuclear instrumentation.

The licensee performed a root cause evaluation to review each of these events and developed an action plan to improve the overall performance within the Problem Identification and Resolution Area. As part of their review they also included two findings from the first quarter of 2013 in the P.1(a) aspect, low threshold, and one violation on the P.1(d) aspect, corrective action. During this inspection period, the inspectors reviewed the action plan, discussed the contents of the plan with licensing, plant management, and observed in-plant activities to determine whether the actions contained in the plan had resulted in improved performance.

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

b. Observations and Findings

No findings were identified. The inspectors determined that the actions taken to date had improved performance in the area of low threshold initiation and have brought additional awareness to the importance of performing a thorough evaluation. However, additional actions were needed to continue upon the improvement and to demonstrate that the improved performance was sustained. Specific actions taken included as a result of the root cause were:

- coordinating with NextEra fleet to implement third tier trend codes associated with NRC cross-cutting aspects under the CAP;
- performing quarterly trend reviews of the corrective action code (EV2) to look for trends until the third tier codes are developed and implemented into the database;
- implementing dynamic learning activities using examples from the evaluation that was conducted with targeted group of the Management Review Committee, Initial Screening Team, Shift Managers, Managers, Licensing and department heads;
- implementing an initial CAP campaign to be performed with the focus on a low threshold with sensitivity towards plant risk/impact; and
- institutionalizing a biennial campaign to communicate and reinforce management's expectations around the CAP.

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

.1 <u>Severe Weather Event and Associated Electrical Transients</u>

a. Inspection Scope

The inspectors reviewed the plant's response to severe weather on August 7, 2013. At 12:52 a.m., both units experienced an electrical transient which caused the contactors for the battery chargers D-07 and D-08 to trip and the White and Yellow inverters lost sync. The site entered Limited Condition of Operation (LCO) 3.0.3 for approximately one minute due to the loss of D-07 and D-08 battery chargers before the chargers were restored. The inverters were restored shortly thereafter. In addition, the control room emergency filtration system shifted out of its normal alignment and into a non-expected "hybrid" configuration. As a result of this alignment, the site entered LCO 3.7.9, "Condition A," for a short period of time. Additionally, both units lost the charging pumps C; and Unit 1 lost charging flow for a short period of time. The licensee took immediate actions to restore all systems to operable status.

At 1:35 a.m., both units experienced a second electrical transient which caused a loss of D-07 and D-08, loss of White and Yellow inverters to sync, the loss of all charging pumps, and the loss of all charging flow. Again, the site entered LCO 3.0.3 for approximately one minute due to the loss of D-07 and D-08 battery chargers before the chargers were restored. Additionally, actions were immediately taken to restore the lost systems. For Unit 1, when the licensee performed actions to establish excess letdown, the unit experienced an unexpected intermediate indication on the Unit 1 letdown isolation valve (1RC-427) and the orifice outlet control valve (1CV-200A).

During these transients, the control room received a notification from the grid operator to lower power approximately 200MW [megawatt] on each unit and began load reductions on both units in accordance with Abnormal Operating Procedure (AOP) -17A, "Rapid Load Reduction." Unit 1 performed a downpower to 85 percent and did not further lower power due to the issues with the letdown system. Unit 2 downpowered to 67 percent. Upon reviewing the logs, the licensee discovered that power had been lost to the emergency offsite facility and 14 out of 22 emergency preparedness notification sirens due to loss of power to their power source.

The inspectors also reviewed the licensee's response to the event and actions taken to restore both units to full power operation. Unit was restored to full power operation on August 8, 2013, and Unit 2 was back to full power on August 7, 2013. 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.

Unit 2 Secondary Plant Side Leak and Downpower

a. Inspection Scope

The inspectors reviewed the plant's response to a secondary plant side leak and downpower on August 14, 2013. At approximately 9:35 a.m., an auxiliary operator found a feedwater/steam leak on the warm-up line to the casing of the Unit 2 main feedwater pump A. The licensee entered procedure AOP-2B, "Feedwater System Malfunction," and in accordance with that procedure, entered procedure AOP-17A, "Rapid Power Reduction," to reduce power to 60 percent or less at a rate of up to 5 percent power per minute. The intent was to place the plant in a condition where the pump could be secured and isolated to stop the leak. At 9:53 a.m., Unit 2 reduced power from approximately 82 percent to 60 percent. During the downpower, the licensee entered TS 3.4.1, "RCS [Reactor Coolant System] Pressure, Temperature, and Flow Departure from Nucleate Boiling Limits," Condition A, for approximately 8 minutes due to pressurizer pressure dropping from about 2235 psig (pounds per square inch gauge) to about 2202 psig, which was outside limits specified in their Core Operating Limits Report. Pressurizer Pressure was restored to within normal operating limits and the TS 3.4.1 was exited. The licensee determined the leak was from a failed gasket in the main feedwater pump 'A' warming line. The licensee took action to replace the failed gasket and inspected electrical components that may have been affected by the secondary side leak. The unit returned to full power following the repair on August 15, 2013.

The inspectors also reviewed the licensee's response to the event and actions taken to restore Unit 2 to full power operation. 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 Unit 1 Rapid Unplanned Downpower Due to Loss of Main Power Transformer Cooling

a. Inspection Scope

The inspectors responded to and reviewed the plant's response to a loss of cooling on the main power transformer (MPT). Specifically, on August 18, 2013, at 8:20 a.m., an auxiliary operator reported that cooling Bank 3 (or Bank 'C') of phase 'C' of the 1X-01 MPT, the was cycling on and off. The operators began monitoring phase 'C' and continued to find issues with cooling banks running/not running as expected. At 10:30 p.m., a report from an auxiliary operator was received indicating that two cooling banks of 1X-01 'phase 'C' had been lost. At 10:46 p.m., based on challenges identified with phase 'C' of 1X-01, Unit 1 entered AOP-17A, "Rapid Power Reduction," to lower power to 75 percent. On August 19, 2013, at 12:46 a.m., Unit 1 reached approximately 78 percent power. At 12:56 a.m., a decision was made to reduce Unit 1 power to 48 percent to facilitate repair of the main feedwater pump 'A' gasket. At 1:41 a.m., Unit 1 reached approximately 49 percent power and reported that cooling Bank 3 (or Bank C) phase C transformer was not operating. At 2:32 a.m., a decision was made to reduce power to approximately 20 percent to take the main generator offline to

facilitate removing power to the MPT from service for repair. On August 21, 2013, Unit 1 returned to full power following repair of the MPT and main feedwater pump.

The inspectors also reviewed the licensee's response to the event and actions taken to restore Unit 1 to full power operation. 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.

4OA6 Meetings Including Exit

.1 Exit Meeting Summary

On October 3, 2013, the inspectors presented the inspection results to Mr. R. Wright, Plant Manager, 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 inspection results for the areas of radiation monitoring instrumentation and radiological environmental monitoring with Mr. D. Weber, Assistant Operations Manager, on July 19, 2013; and
- the inspection results for the area of radioactive solid waste processing and radioactive material handling, storage, and transportation with Mr. R. Wright, Plant Manager, on August 23, 2013.

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

4OA7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of the NRC Enforcement Policy, for being dispositioned as NCVs:

.1 <u>Missing Verification Steps and Acceptance Criteria in Turbine-Driven Auxiliary</u> <u>Feedwater Pump Overhaul Procedure</u>

The licensee identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to have procedures appropriate to the circumstances. Specifically, procedure RMP 9044-8, "Turbine Driven Auxiliary Feedwater Pump Overhaul," did not contain instructions or acceptance criteria for verification of rotor axial position, verification of shaft locating ring thickness and verification for axial shaft

clearances. The licensee confirmed that the missing information would be considered critical tolerances and incorrect values could have negative consequences on operation of the pump. This issue was entered into the CAP as AR01791932 and the procedure were corrected.

The performance deficiency was determined to be more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to verify critical tolerances after rebuilding the turbine-driven AFW pump could result in a failure in the pump when needed to mitigate accident conditions. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012. The inspectors determined that the finding did not result in the loss of operability for either of the turbine driven AFW pumps and answered "No" to Mitigating Systems Screening Questions 1-4, and screened the finding as having very low safety significance (Green).

.2 <u>Documentation Error Causes Oversight in Creating Oil Change Tasks for New Auxiliary</u> <u>Feedwater Pump Motors</u>

The licensee identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." This regulation requires, in part, that measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions. Preventive maintenance change requests (PMCRs) for the new AFW pump motors were written incorrectly in that, they referenced condensate pumps instead of AFW pumps. The condensate pumps PMCRs were already in place so PMCRs 1761560 and 1761592 for the AFW pump motors were never implemented. The licensee identified this after the oil changes for the motor bearings were overdue. This issue is more than minor because if left uncorrected would have the potential to lead to a more safety significant concern. This issue has been entered into the licensee's CAP and corrective actions taken to change the oil and implement future planned oil changes. The licensee initiated AR01868740 and AR01868742, and scheduled the oil changes. Oil changes were performed on both motors and oil analysis determined that the oil guality remained adequate for the pump motors to perform their safety function and not affect operability.

The performance deficiency was determined to be more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to change the oil on the AFW pump motors could lead to motor bearing degradation or failure before completion of its mission time. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012. The inspectors determined that the finding did not result in the loss of operability for either AFW pump; therefore, the inspectors answered "Yes" to Mitigating Systems Screening Question 1, and screened the finding as having very low safety significance (Green).

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

<u>Licensee</u>

- L. Meyer, Site Vice President
- E. McCartney, Site Director
- R. Wright, Plant General Manager
- B. Scherwinski, Licensing
- E. Schmidt, Programs Engineering Supervisor
- F. Hennessy, Performance Improvement Manager
- G. Strharsky, Emergency Preparedness Manager
- G. Vickery, Operations Director
- J. Keltner, Chemistry Manager
- J. Lewandowski, Nuclear Oversight Supervisor
- K. Locke, Licensing
- K. Longston, Emergency Preparedness Coordinator
- M. Millen, Licensing Manager
- R. Harrsch, Engineering Director
- R. Welty, Radiation Protection Manager

Nuclear Regulatory Commission

P. Pelke, Acting Chief, Reactor Projects Branch 6

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

<u>Opened</u>

05000266/2013004-01; 05000301/2013004-01	NCV	Failure to Follow Operability/Functionality Evaluation Process Following Radiation Monitor Failure (1R15)
05000266/2013004-02; 05000301/2013004-02,	SL-IV NCV	Failure to Update FSAR for Radioactive Waste Storage Changes (2RS8)
<u>Closed</u>		
05000266/2013004-01; 05000301/2013004-01	NCV	Failure to Follow Operability/Functionality Evaluation Process Following Radiation Monitor Failure (1R15)
05000266/2013004-02; 05000301/2013004-02,	SL-IV NCV	Failure to Update FSAR for Radioactive Waste Storage Changes (2RS8)
<u>Discussed</u>		
05000266/2012002-07;	URI	Past Reportability of Degraded Hazard Barrier Doors Not

05000301/2012002-07) Performed

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.

1R04 Equipment Alignment

- 0-TS-SW-001; Service Water Flow Path Valve Position Verification (Monthly); Revision 3
- AR01861557; SW-4 Not in Expected Position
- AR01863659; Combustible Materials in Safe Shut Down Area
- AR01865777; 1SI-831A 1T-38 Spray Additive Tank Outlet Found CT Shut
- AR01869249; EC 259770 Flex Fire Pump Replacement and SW Cross-Connect
- AR01872187; SW-21 Shut Stop Needs Adjustment
- AR01905263; CL 10B Service Water Safeguards Lineup
- AR01905267; CL 10B Service Water Safeguards Lineup
- AR01905290; NRC Identified: SW-374 Found With No Lock On Handwheel
- CL 10B; Service Water Safeguards Lineup; Revision 69
- CL 10J; Safeguards Service Water System Checklist Unit 1; Revision 26
- CL 10J; Safeguards Service Water System Checklist Unit 2; Revision 29
- CL 13E Part 2; Auxiliary Feedwater Valve Lineup Motor Driven; Revision 49
- CL 7A; Safety Injection System Checklist Unit 2; Revision 31
- Condition Report Search for Configuration Control Events; September 20, 2012 and September 20, 2013
- DBD-11; Safety Injection and Containment Spray System; Revision 21
- Drawing 018974; Safety Injection System; Revision 54
- Drawing 018975; Safety Injection System; Revision 54
- Drawing 018976; Safety Injection System; Revision 47
- Drawing 019016; Auxiliary Feedwater System; Revision 97
- Drawing 080034; Service Water; Revision 67
- Drawing PB19842; Revision 02
- EOP-1.3, Unit 2; Transfer to Containment Sump Recirculation Low Head Injection; Revision 49
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- FSAR Section 6.4; Containment Spray System; UFSAR 2010

1R05 Fire Protection

- AR01318688; RIS 2006-10 Noncompliant SSD Man. Actions Fire Areas A25-A29
- AR01711816; Fireworks Computer Not Properly Set Up for Off-Normal Signal
- AR01713472; Computer Rm Smoke Detectors Not Installed Per NFPA Standards
- AR01842832; XS-5126 Did Not Process Alarm to D-405 Panel
- AR01842833; C-913 Circuit Supervisory Module Lit on D-405
- AR01848830; Fire Door 140 Not Closing On Its Own Power
- AR01848833; Fire Door 213 Will Not Close On Its Own Power
- AR01858883; Fire Protection Equipment Access Blocked
- Drawing 141393; Fire Protec. / Sprinkler Sys. Unit 1; Revision 23
- Drawing 285039; Turbine Building and Aux Building Elev. 8'-0"; Rrevision 09
- Duke Engineering and Services Fire Area Analysis Summary Report; Fire Area:
- A28 G02 Diesel Generator Room; August 8, 2005

- Duke Engineering and Services Fire Area Analysis Summary Report; Fire Area: A27 G01 Diesel Generator Room; August 8, 2005
- FEP 4.0; Fire Emergency Plan; Revision 5
- FEP 4.1; PAB West and Central-EI. (-)19'; (-)5'; 8' CCW, CS/SI, AFW; Revision 12
- FEP 4.13; Emergency Diesel Generator (G01/G02) and Compressor Rooms; Revision 10
- FEP 4.19; Circulating Water Pumphouse; Revision 9
- FEP 4.20; Site; Revision 9
- FHAR FZ 151; Fire Zone Data for Safety Injection Pump Room; September 2012
- FHAR FZ 308; Fire Area A27; September 2012
- FHAR FZ 309; Fire Area A28; September 2012
- FHAR FZ 552; Fire Area A38; Fire Zone Data for Service Water Pump Room; September 2012
- FHAR; Fire Hazards Analysis Report; Revision 4
- FPER; Fire Protection Evaluation Report; Revision 13
- FPTE 006; Technical Evaluation of Fire Detector Location Plan at Point Beach Nuclear Plant; Revision 1
- NP 1.9.9; Transient Combustible Control; Revision 23
- NP 8.4.11; Penetrating Barriers; Revision 20
- OM 3.27; Control of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 50
- PBF-2058B; Fire Round Performance Sheet-PAB; September 17, 2013
- PC 72 Part 2; Monthly Surveillance of Clean Side Fire Extinguisher Equipment; Completed August 26, 2013
- RMP 9057; Fire Barrier Penetration Fire Seat Surveillance; March 21, 2003
- 1R11 Licensed Operator Requalification Program
- AR01887753; Simulator PB2 Panels Stopped Responding During LOC 13D0015
- AR01895872; Licensed Operator Segment 13D Quiz Failure
- AR01896731; Simulator PPCS Potential Fidelity Issues
- LMS ID PBN LOC 13D 004S; SEG for Electrical Systems Malfunctions; Undated
- LMS ID PBN LOC 13D 006S; SEG for ERG Rev 2 Simulator Scenario; June 13, 2013
- PBNP LOCT Segment 13D Schedule; PB-LOC-TPD, Licensed Operator Continuing Training; July 1 and August 7, 2013
- PBNP LOCT Segment 13E Schedule; PB-LOC-TPD, Licensed Operator Continuing Training; August 20, 2013
- Post-Scenario Review; LOCT Seg# PBN LOC 13E 006S; August 22, 2013

1R12 Maintenance Rule Effectiveness

- AM 3-4; Implementation of the Maintenance Rule at PBNP; Revision 8
- AR01856527; Component Attribute for MRFF Eval Corrections
- AR01860390; Conflict Between MRFF Eval and MRLIN Quarterly Report for MS
- AR01897700; 1X-01 Phase C Fans Found Not Running
- AR01897937; 1X-01-C Transformer Health After Loss of Cooling
- AR01898025; Following Forced Outage 1X-01-B Has Higher Temp Indications
- AR01898235; Winding Temperature Gauge is Stuck
- Drawing PB 202226; Cooler Control; Revision 7
- Energis 20130819T205913Z; Transformer Oil Analyst 4.0; August 19, 2013
- Function List for 345kVAC Electrical Sorted For Maintenance Rule; August 20, 2013
- NP 7.7.5; Maintenance Rule Monitoring; Revision 23
- NP 7.7.7; Maintenance Rule Periodic Evaluation; Revision 6

- NPM 2012-0109; January 2010 through June 2011Periodic Maintenance Rule (a((3) Evaluation; March 30, 2012
- NPM 2013-0112; July 2011 through December 2012 Periodic Maintenance Rule (a((3) Evaluation; March 27, 2013
- OM 3.39; Degraded Equipment/Adverse Condition Monitoring Procedure; Completed August 21, 2013
- PBF-7029, Documentation of Maintenance Rule Performance Criteria; System 345kV; June 26, 2013
- PBNP Functional Failures and MPFF; July 2011 to December 2012
- PBNP Maintenance Rule (a)(1) Status; January 21, 2013
- Reference Use WO 40263598; X-01 Main Power Transformer; August 20, 2013
- Support / Refute Matrix for AR01897700, 1X-01 Phase C Fans Found Not Running
- Troubleshooting Fault tree; 1X01-C Main Power Transformer Phase C
- WO Package 40263598; 1X-01 Phase C Fans Found Not Running

1R13 Maintenance Risk Assessments and Emergent Work Control

- 1-SOP-CC-001; Component Cooling System; Revision 24
- AR01889737; NRC Questions Air Comp Availability During Strainer Cleaning
- AR01889737; NRC Questions Air Comp Availability During Strainer Cleaning
- AR01893508; U1 Crossover Dump Valve 3# Will Not Seat With Auto Steam
- AR01894562; Safety Monitor Alignment Update
- AR01895178; Safety Monitor CDF Red for Both Units Electrical Transient
- AR01896059; 345 kV Line 151 Repair
- AR01903307; No Process to Track Risk Assessment Requirement of NP 10.3.7
- CE 011149144-01; Table for STA Evaluation Use, Rev. 5; February 28, 2013
- CE01889737; On July 16, 2013, NRC Resident Questioned Safety Monitor Availability; July 26, 2013
- M-207; Sheet 3; Unit 1 Service Water; Revision 66
- NEI 93-01; Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants; Revision 4A
- NP 10.3.5; Risk Monitoring and Risk Management; Revision 2
- NP 10.3.7; OnLine Safety Assessment; Revision 28
- NP 10.3.7; On-Line Safety Assessment; Revision 28
- NP 7.7.4; Scope and Risk Significant Determination for the Maintenance Rule; Revision 22
- PBF-2015, Operations Notebook; Component Unavailability; July 16 2013
- PBF-9814; Risk Management Actions for Entry Into an Orange or Red Risk Level; August 14, 2013
- PRA 1.1; Plant Definition Notebook; Revision 1
- PRA 11.0; Internal Events Quantification Notebook; Revision 2
- PRA Notebook Index; Revision 21
- Safety Monitor, Units 1 and 2; Various Dates July 14 to September 18, 2013
- WM-AA-1000; Work Activity Risk Management; Revision 13
- WM-AA-203; Online Scheduling Process; Revision 9
- 1R15 Operability Evaluations
- AR01365327; Shroud Temperature Limit of 260 F May Be Non-Conservative
- AR01685824; PPCS Priority Alarm: T-3220, CR Shroud Suction HDR Temp High
- AR01778702; Unexpected Alarm Unit 2 CR Shroud Suction Header Temperature
- AR01781302; ARP 2-PPCS-019 Priority Alarm Control Rod Shroud Temperature

- AR01825885; Unit 2 Cavity Cooler Performance Requirements
- AR01861967; Recent Issues Related to Operability/Functionality
- AR01866223; 1W-3B, Shroud Fan Abnormal Operation
- AR01886385; 2X-03 High Voltage Aux Transformer Insulator Damaged
- AR01886837; 1X-03 South Insulator Has Cracks
- AR01887289; PPCS Priority Alarm for Shroud Header Temperature High
- AR01887365; Escalation for Resolving Containment Dome Truss Issue
- AR01890347; FSAR Chap 14.1.6 Analysis Not Performed for EPU Conditions
- AR01890799; 1RE-232 In High Alarm
- AR01892313; 1RE-232 Readings During Hot Weather
- AR01895233; Electrical Perturbations Caused Tripping of D07/D08 Chargers
- AR01897151; NRC Concern Documenting of Functionality for 1RE-232
- AR01897965; 1RE-232 Lack of Timeliness for Work Request Approval
- ARP 2-PPCS-019; Priority Alarm Control Rod Shroud Temperature Unit 2; Revision 2
- Assessment of Past Functionality for AR01899151, 1RE-232 Readings During Hot Weather; Completed August 30, 2013
- Condition Report Search for Operability Determination; March 24 to September 24, 2013
- DBD-19; 125 VDC System; Revision 12
- EC 279739; Estimation of Effect of LP Heater Bypass Valve Opening; August 1, 2013
- EN-AA-203-1001; Operability Determinations / Functionality Assessments; Revisions 9 and 10
- FSAR Section 5.3; Containment Ventilating System; UFSAR 2010
- FSAR Section 8.7; 125 VDC Electrical Distribution Systems (125V); UFSAR 2010
- Functionality Assessment (FA) 01892313, 1RE-232 Readings During Hot Weather; Completed August 23, 2013
- Modification Request No. E-206 and E-207; Modify Method of Supplying Battery Chargers; March 19, 1984
- NEI 96-07, Section 4.3.2; Does the Activity Result in More than a Minimal Increase in the Likelihood of Occurrence of a Malfunction of an SSC Important to Safety?; Revision 1-Final Draft
- NPC-06068; Letter from Wisconsin Electric to NRC; Subject: Response to Inspection Reports 50-266/90-201 and 50-301/90-201, Electrical Distribution System Functional Inspection Point Beach Nuclear Plant Units 1 and 2; August 3, 1990
- NPC-27859; Letter from Wisconsin Electric to NRC; Subject: Instrument Bus Power Supplies, Point Beach Nuclear Plant Units 1 and 2; May 29, 1980
- NPC-27934; Letter from Wisconsin Electric to NRC; Subject: Instrument Bus Modifications, Point Beach Nuclear Plant Units 1 and 2; November 3, 1980
- NPC-28118; Letter from Wisconsin Electric to NRC; Subject: Instrumentation Power Supply, Point Beach Nuclear Plant Units 1 and 2; December 10, 1981
- NPC-28581; Letter from Wisconsin Electric to NRC; Subject: Instrumentation Power Supplies, Point Beach Nuclear Plant Units 1 and 2; September 25, 1984
- NPC-29855; Letter from NRC to Wisconsin Electric; Subject: Amendments Nos. 87 and 92; December 27, 1984
- NPC-35988; Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting Amendment Nos. 38 and 43; May 11, 1979
- NPC-36303; Letter from NRC to Wisconsin Electric; Subject: Amendments Nos. 84 and 88; April 30, 1984
- NPC-36820; Safety Evaluation; Modification to Instrumentation Power Supply
- NPC-36821; Safety Evaluation Report; Instrument Bus Modifications
- PBF-2068g 1RE-232; Status of an RMS Channel Not in Service; Completed August 16, 2013
- PI-AA-204; Condition Identification and Screening Process

- POD 01890347; FSAR Chapter 14.1.6 Analysis Not Performed for EPU Conditions; Revision 0
- Station Log; August 7, 2013
- Station Log; Various Dates July 18 to August 14, 2013
- TS 3.3.4; Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation

1R18 Plant Modifications

- EC 278757; Install a New Weather Hood Over the Existing G-05 Air Intake; Revision 1
- OI 110; Gas Turbine Operation; Revision 23

1R19 Post-Maintenance Testing

- 1RMP 9045-5; 1DY-04 Yellow Channel Instrument Bus Static Inverter Maintenance Procedure; Completed July 30 and August 1, 2013
- AR01888885; Failed PMT
- FSAR Section 7.6; Instrumentation Systems; UFSAR 2010
- MA-AA-202; Work Order Execution Process; Revision 7
- Operating Permit for Work Documents 40207333, 40207334, 40207552; August 1, 2013
- PBF-0035; Wire Lifted and Landed Log for Work Plan 40207552; July 30 to 31, 2013
- PCR 01893672; 1DY-04 Yellow Channel Instrument Bus Static Inverter Maintenance Procedure; August 1, 2013
- Power Range IV, Unit 2; N-00043; Serial #: 001721; July 2013
- TS 3.3.1; RPS Instrumentation; Unit 1 Amendment No. 239, Unit 2 Amendment No. 243
- TS 33; Containment Accident Recirculation Fan-Cooler Units (Monthly) Unit 1; Completed July 26, 2013
- WO 40202956; 2N-41: Obtain VI Curve (2ICP 10.048RD)
- WO 40202959; 2N-43: Obtain VI Curve (2ICP 10.048BL)
- WO 40207333; 1DY-04 Perform 6 Year Capacitor Replacement
- WO 40207334; 1DY-04 Perform 4 Year Air Flow Switch Replacement
- WO 40207552; 1DY-04, Maintain and Inspect Inverter
- WO Package 40195220; 2FS-00229 Clean Flow Switch
- WO Package 40195588; 2RE-00229 Replace Sample Pump & Motor
- WO Package 40207643; 1B420C-B957D, P-32C Power Transfer Switch Inspection
- WO Package 40236693; 1SW-02907 Retorque Packing Due to Leak
- WO Package 40262707; 1RE-232 / Alert Received U1 'B' Steamline Rad Monitor

1R22 Surveillance Testing

- 10 CFR 50.59/72.48 Pre-Screening Review; 1-TS-43-004, Weekly Quadrant Power Tilt Ratio Checks Unit 1, Rev 4; completed July 17, 2013
- 10 CFR 50.59/72.48 Pre-Screening Review; 2-TS-43-004, Weekly Quadrant Power Tilt Ratio Checks Unit 2, Rev 4; completed July 17, 2013
- 1-TS-RE-004; Weekly Quadrant Power Tilt Ratio Checks Unit 1; Completed March 2, 2013
- 2RESP 6.1; Core Power Distribution and Nuclear Power Range Detector Calibration Unit 2; Completed July 11, 2013
- 2RESP 6.1; Core Power Distribution and Nuclear Power Range Detector Calibration Unit 2; Completed July 1, 2013
- 2-TS-RE-004; Weekly Quadrant Power Tilt Ratio Checks Unit 2; Completed March 1, 2013
- 2-TS-RE-004; Weekly Quadrant Power Tilt Ration Check Unit 2; Completed July 16, 2013
- 33Map211.Job; # Unit 2 Mesh Points for Post 28% Maps Using 01WE-G-033 Methodology and NF-WE-02

- AD-AA-100-1004; Preparation, Revision, Review and Approval of Site-Specific Procedures; Revision 10
- AR01344161; RCS Leak Rate Program
- AR01390071; NRC Questions Regarding RCS Leak Rate
- AR01613274; PC 97 Flushes Could Pre-Condition CFCS
- AR01819735; Mistakes on GL 89-13 OI-151 HX-12D Data Collection
- AR01821060; 2HX-015A1-A4 Coils Cleaned Prior to GL 89-13 Inspection
- AR01888989; Recent Changes to 1/2 TS-RE-004 Inadequate
- AR01889246; Adverse Trend in U2 QPTR May Result in 6% Load Reduction
- AR01889414; 2-TS-RE-004-CA 01888989
- AR01889416; 1-TS-RE-004-CA 01888989 Rev Issued Need MRC Review
- AR01889419; 1-TS-RE-004-CA 01888989 Rev Issued Need MRC Review
- AR01890321; P-32A Pump Performance
- AR01890321; P-32A Pump Performance
- AR01895167; (p) IT 07A P-32A Service Water Pump (Quarterly)
- ASME OMa Code; Code for Operation and Maintenance of Nuclear Power Plants; 2005
- CE 01890321; P-32A Service Water Pump Testing on July 10, 2013; July 31, 2013
- Comprehensive Pump Inservice Testing (IST) Issues Seeking Resolution of Two Long Standing Regulatory Concerns; by R. Parry and T. Robinson, ASME Operations & Maintenance Standards Committee Member
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- FSAR Section 6.5; Leakage Detection Systems; UFSAR 2012
- IST Program Equipment on Increased Frequency Testing; July 31, 2013
- IT 04 Train A; Low Head Safety Injection Pumps and Valves Train A Unit 2; Revision 5; Completed July 16, 2013
- IT 07A; P-32A Service Water Pump (Quarterly; Completed July 10, 2013
- NP 3.2.4; Primary to Secondary Leak Rate Monitoring Program; Revision 8
- OI 155; Chemical Treatment of Service Water for Mussels; Revision 37
- OI 55; Primary Leak Rate Calculation; Completed October 31, 2012
- OM 3.19; Reactor Coolant System Leakage Determination; Revision 7
- PB2; Control Rods; July 1, 2013
- PB2; Incore T/C Temperatures; July 1, 2013
- PB2; Nuclear Instrumentation; July 1, 2013
- PB2; Tilt Review; July 1, 2013
- PB2; Xenon Follow Output Summary; July 1, 2013
- PBF-2132; Control Room Miscellaneous Shift Log Modes 1-3, Unit 2; July 16, 2013
- PBNP Unit 2 Cycle 33 Flux Map; summary Table #1 For RESP 6.1
- PBNP Work Activity High Risk Assignment List for Work Week 1328
- PC 97 Part 7; SW Flush of 2HX-15C1-C8 Containment Fan Cooler Coils and 2HX-15C Motor Cooler Unit 2; Revision 8
- REI 6.0; Normal Flux Mapping Using the Incore Moveable Detector System; Completed July 01, 2013
- Station Log; Various Dates September 9 to 15, 2010 and June 13 to August 15, 2013
- SWR-2001-047; PBNP Power Range Detectors Calibration Currents; July 1, 2013
- T-1 Key Maintenance; July 10, 2013
- TAR Checklist; Procedure 1-TS-RE-004, Weekly Quadrant Power Tilt Ration Check Unit 1
- TAR Checklist; Procedure 2-TS-RE-004, Weekly Quadrant Power Tilt Ration Check Unit 2
- TS 3.4.13; RCS Operational Leakage; Unit 1-Amendment No. 223, Unit 2-Amendment 229
- TS 34; Containment Accident Recirculation Fan-Cooler Units (Monthly) Unit 2; Completed July 19, 2013

- TS Bases B 3.4.13; RCS Operational Leakage; Unit 1-Amendment No. 201, Unit 2-Amendment 206
- WO 40203942; Quadrant Power Tilt Ratio Checks
- WO Package 40173447; ICP 6.42 Intake Surge Chamber Level Detection
- WO Package 40200052; IT-07C, P-32C Service Water Pump Test
- WO Package 40205050; P-032C-M, MCE Analyze Motor (1B52-20C/1B-04) W/RIC

2RS5 Radiation Monitoring Instrumentation

- 2ICP 13.017; Containment High Range Radiation Monitoring System Channels 2RE-126, 2RE-127, 2RE-128 Calibration; September 11, 2012
- Calibration of the Canberra FastScan WBC System at the Point Beach Nuclear Plant; January 10, 2013
- Calibration of the Canberra FastScan WBC System at the Point Beach Nuclear Plant; January 17, 2012
- HPCAL 3.11; Containment High Range Detector Response Check; November 4, 2012
- HPCAL 3.4; SPING Calibration; various dates
- STPT 13.2; Radiation Monitoring System; Process Monitors; Revision 7
- STPT 13.4; Radiation Monitoring System; Effluent Monitors; Revision 16

2RS7 Radiological Environmental Monitoring Program

- AR01783109; Lake Water Sample; Elevated Tritium
- AR01807546; 3D Q Slightly Elevated H-3 Upstream From PBNP
- AR01811273; Beach Drain S-3; Elevated H-3 August 2012
- AR01823019; Two Radionuclides Detected in REMP Vegetation Sample
- AR01828774; REMP Air Samples; Slightly Lower Collected Volumes
- AR01854539; Missed Sample at E-01 South Met Tower
- AR01880035; OI-38; Trend Deviations from Fish Handling Requirements
- AR01880914; REMP; ZN-65 Found in Fish
- Environmental Manual; Revision 23
- HPIP 3.58.1; Radiological Environmental Sampling; Revision 0
- HPIP 3.58; Ground Water and Subsoil Tritium Sampling; Revision 19

<u>2RS8</u> Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and <u>Transportation</u>

- 2010 Dry Active Waste Sample Report; October 28, 2010
- AR01698401; Isotope Not Added to the Shipping Database
- AR01698551; Incorrect Package Certification on Shipping Papers
- AR01754263; Control of Radioactive Sources, Postings, and Material
- AR01852673; Station Practices for Transport of Materials is Inadequate
- AR01865299; Radioactive Shipment Vehicle in Accident
- AR01870495; NRC RIS 2013-04, Content Evals Type B Transportation Package
- Primary Resin Sample Report; September 19, 2011
- RDW 14.3 Steam Generator Storage Facility Low-Level Radioactive Waste Storage Requirements; Revision 2
- RDW 14.4; Requirements for the Storage of Containers in Outside Areas Including Warehouse 7; Revision 5
- RDW 18.1.1; 10 CFR 61 Sampling Program; Revision 4
- RP-AA-108-1002; Shipment of Radioactive Material; Revision 2
- RP-AA-108-1003; Radioactive Materials Surveys for Shipment; Revision 1

- RP-AA-108-1004; Packaging Radioactive Materials for Shipment; Revision 0
- SCR 2012-0006; Storage of Radioactive Materials in Warehouse 7; January 1; 2012
- SE 99-007; Storage of Low-Level Dry Radioactive Waste, Green-Is-Clean Radioactive Waste, and Radioactive Material in PBNP RCA Yard Areas; March 30, 1999
- SER 89-088-02; Evaluation to Allow for the Storage of Low-Level Radioactive Waste in the Steam Generator Storage Facility; February 24, Revision 2
- SER 96-037; Radioactive Materials Storage Area in the South Bay of the Steam Generator Storage Facility; May 9, 1996
- Shipping Package for Shipment 11-070; November 9, 2011
- Shipping Package for Shipment 12-001; January 15, 2012
- Shipping Package for Shipment 12-033; November 6, 2012
- Shipping Package for Shipment 12-038; November 30, 2012
- Shipping Package for Shipment 13-021; April 8, 2013
- Spent Fuel Pool Waste Sample Report; December 10, 2011

4OA1 Performance Indicator Verification

- 1ICP 02.005B; Engineered Safety Features System Logic Train B 31 Day Staggered Actuation Logic Test; Revision 10
- AR01768931-22; Safety System Functional Failure Review; July 30, 2012
- AR01819593; 2P-53 MDAFW Pump Mini Recirc Operation During ORT 31 Preps
- AR01824920; Studs on Governor Valve Need Replacement
- AR01836112; No Driver for Periodic Reviews of MSPI Basis Document
- AR01837653; Periodic Review of MSPI Basis Document
- AR01883159; MSPI Data in CDE Incorrect
- AR01890255; MSPI Data Error in CDE ESF Starts
- AR01892731; Potential Safety System Functional Failure 1P-29
- AR019033536; MSPI Basis Doc AF Operational Estimates Need Revision
- CE 01892731; Previously Unidentified Potential Safety System Functional Failure Identified; August 6, 2013
- Control Room Logs; Various Dates September 1, 2012 to April 30, 2013
- LER 2012-002-02; Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater; December 18, 2012
- MSPI Basis Document for Point Beach Nuclear Plant; Revisions 19, 20, and 21
- MSPI Derivation Report; MSPI Heat Removal System Unavailability Index, Units 1 and 2; June 2013
- MSPI Derivation Report; MSPI Heat Removal System Unreliability Index, Units 1 and 2; June 2013
- MSPI Indicator Margin Remaining in Green Current Production; Units 1 and 2; August 2013
- MSPI Monthly Unavailability and Verification for AF System for April 2013; Completed May 1, 2013
- MSPI Monthly Unavailability and Verification for AF System for December 2012; Completed January 3, 2013
- MSPI Monthly Unavailability and Verification for AF System for January 2013; Completed February 4, 2013
- MSPI Monthly Unavailability and Verification for AF System for June 2013; Completed July 1, 2013
- MSPI Monthly Unavailability and Verification for AF System for March 2013; Completed April 1, 2013

- MSPI Monthly Unavailability and Verification for AF System for November 2012; Completed December 3, 2012
- MSPI Monthly Unavailability and Verification for AF System for September 2012; Completed October 2, 2012
- 4OA2 Identification and Resolution of Problems
- ACE 1751804; Green NCV 1Q12 For Failure to Perform Operability Evaluations on Facility Doors; Revision 2; May 29, 2012
- AOP-9A; Service Water System Malfunction; Revision 27
- AR01363421; Maintenance Needed on Fire Door 155
- AR01363862; Security on Door Binding on Frame
- AR01364104; Hardware Adjustment Required for Door 27
- AR01364350; Fire Door 142 Needs Repair or to be Replaced
- AR01365253; Fire Door Not Securing Properly
- AR01365272; Security Equipment
- AR01365603; Door-142 Needs Replacing
- AR01366135; Door 61 Sweep Has Come Loose
- AR01366220; Conduit Associated with Security Door 070 Not Supported
- AR01366462; Lock Coor Missing From Fire Door 485
- AR01367343; Security Identified Door 028 Unsecured
- AR01367362; Door 65 (CR North Door) is Stuck Shut
- AR01367441; Door-065
- AR01367537; Door-191 Not Opening and Closing Properly
- AR01369738; Cutting Hazard on Ladder to Door 485
- AR01369855; Repair Door 486, Loose Handle Plate
- AR01369981; HELB Barrier Door 192 Not Closing
- AR01370165; Loose Hardware on Door 27 Cable Spreading
- AR01371007; Keep Door Closed Sign Fell off Fire Door 19
- AR01371080; Control Room Door 61 Sweep Falling Off
- AR01372558; Door 140 Found Ajar
- AR01373716; Handle Loose on Fire Door 68
- AR01374399; Improper Status To Enter Vital Area Door 65
- AR01374918; Fire Door 142 Not Closing
- AR01375549; Maintenance Required on Fire Door 142
- AR01376102; Door 6 Propped Open, HELB, Fire, and Flood Door
- AR01377357; Status Alarm Received on Door 28
- AR01379325; Door 61, Control Room South Door Sweep Loose
- AR01380931; Closure on Fire Door 138 Not Functioning Properly
- AR01383000; Door 61 Door Sweep Found Broken
- AR01383902; Security Identified Door #3 Unsecured
- AR01384388; Security Identified Door 28 Unsecured
- AR01385097; Fire Door 138 Not Closing Properly
- AR01385183; Door 383, PAB Yellow Inverter Room Door
- AR01385590; Security Door 324 Needs Screws/Tightening on Plate
- AR01386698; Fastener Holding Fire Door 261 Closure Broken
- AR01387185; Door 74 Computer Room to CREFS Equipment Room Stuck Shut
- AR01387187; Door 74 Will Not Open from Southside
- AR01387354; Late Entry on Control Room TS LCO 3.7.9.A
- AR01388675; VA Door Found Unsecure Door 3
- AR01388833; Door 9 Secondary Door Latch

- AR01390857; Broken Door Closure
- AR01391250; Door Handle Fell Off of Door 261 Due to Broken Piece
- AR01391657; NRC Questions About Work on Door-65
- AR01392061; Door Handle Not Able to be Locked on D.018
- AR01392140; Security Door Not Functioning As Designed Door 27
- AR01393046; Control Room Door 61 Has Broken Door Sweep Potential CREFS
- AR01394048; Fingers Sticking on Fire Door 141, Keeping It From Closing
- AR01394698; Security Door Found Open
- AR01395363; NRC Question Regarding 3 Hour Rating of Door 148
- AR01396538; Control Room North Door-65 Handle Fell Off
- AR01397209; Fire Door 67 in Aux Feed Pump Rm Door Closer Cover Off
- AR01397749; Door 65 (Control Room) Outside Handle Will Pull Out of Door
- AR01397780 Door 65 Pull Handle Not Being Used
- AR01398479; Door Handle Broken on Door 28
- AR01398809; Security Door 027 Will Not Open
- AR01399264; Door 61 (South Side Control Room) Not Closing Properly
- AR01400417; Door 19 Has a Broken Latch, the Door is a HELB Barrier
- AR01400681; Security Door Handle Door 28
- AR01400779; Security Door 027 Left Open
- AR01401046; Security Equipment Door 28
- AR01401212; Door 28 is Loose Will Need Repair, Still Secures
- AR01401214; Security Identified Door # 27 Unsecured
- AR01619314; Security Identified Door 27 Unsecured
- AR01619646; Door-006
- AR01622104; Security Identified Door 09 Unsecured
- AR01622142; Security Identified Door 09 Unsecured
- AR01622173; Security Identified Door 09 Unsecured
- AR01622182; Door 09 Removed From Service Due to Mechanical Issue
- AR01623065; Security Identified Door 9 Unsecured
- AR01628683; Door #19 8' South Auxiliary Feed Tunnel
- AR01628684; Door #19 8' South Auxiliary Feed Tunnel
- AR01629617; Closure on Door 19 Broken
- AR01630440; Door 27
- AR01631352; Security Identified Door 27 Unsecured
- AR01634074; Door 61 Lockset Not Working As Designed
- AR01634080; A Vital Door Was Not Functioning As Designed
- AR01636088; Door # 61 Sweep Broken
- AR01636089; Door # 61 Sweep Broken
- AR01636641; Security Identified Door #27 Unsecured
- AR01639639; Security Identified Door 27 Unsecured
- AR01641832; Security Identified Door 9 Unsecured
- AR01642829; Security Identified Door #27 Unsecured
- AR01649125; Security Identified Door 27 Unsecured
- AR01650740; Door 065 Not Working
- AR01651952; Potential Trend, Issues With Door-009
- AR01651953; Potential Trend, Issues with Door-027
- AR01655713; Security Identified Door 27 Unsecured
- AR01656492; South Side Control Room Door 61 Delay Barrier Cage Door
- AR01657522; Top Dead Bolt on Fire Door # 007 Missing Screws
- AR01668654; Door 28 Has Missing Spacer for Maglock
- AR01671908; Door 19 Binding

- AR01673716; Door 9 Not Closing Correctly
- AR01675612; Sign Temporarily Taped to Fire Door 27
- AR01678547; Door 19 is Difficult to Operate/Has Broken Latch Mechanism
- AR01679814; Security Identified door # 27 Unsecured
- AR01680604; Door 27 Violations Continue to Occur
- AR01680604; Door 27 violations Continue to Occur
- AR01680724; Door-27 Has Been Out of Service for Several Months
- AR01680903; Clock Resets, Door-027 Cable Spreading Room
- AR01681433; Door Handle Falling Off of Door-27
- AR01681614; Door 27 Handle Not Locking Properly
- AR01699619; Status Alarm at Door 28
- AR01702385; Fingers Sticking on Fire Door 139
- AR01702763; Door 11 Needs To Be Replaced
- AR01703704; Security Door 321 Handle Does Not Lock
- AR01703998; Door Repair
- AR01704594; Door 2 Broken
- AR01704664; Door 272 Receiving Multiple Time Outs
- AR01704667; Fire Door 208 Finger Plate Loose
- AR01705043; Door 114 Does Not Secure At All
- AR01705805; Door 232 Secondary Door Not Functioning as Designed
- AR01706975; Door 289 (SSB to TB1 44') Strike Plate is Loose
- AR01707172; Door 602 Is Not Closing Properly
- AR01708298; Shaft to Door Handle Broke on Door 152
- AR01708614; Upper Door Latch Broke
- AR01708764; Openings Doors 8 and 9 in Air Compressor Room
- AR01708975; Status Alarm Door 65
- AR01711301; Timeliness of Trend Codes
- AR01712406; Automatic Door Closure Not Functioning
- AR01713101; Door Knob is Broken to Switchhouse
- AR01713288; Door Removed From Service Due to Mechanical Conditions. Door 61
- AR01713382; Security Identified Door # 27 Unsecured
- AR01713727; Numerous Tamper Alarms Received on Door 205
- AR01714713; Switchyard Switch House Door Knob Broken
- AR01715180; Door 61 Pinch Hazard
- AR01715513; Security Identified Door # 321 Unsecured
- AR01715604; Door Handle Broken East Switchyard Building
- AR01715766; Door-149, Door Closing Device Required Adjustment
- AR01715789; Door 9 Not Functioning As Designed
- AR01717062; Hard Alarm on Door 205
- AR01717185; Status Level Alarm at Door 65
- AR01717267; Fire Door 309 Handle About to Fall Off
- AR01717313; Door 345 Handle Assembly Loose
- AR01717357; Door 159 Alarm Will Not Reset
- AR01719678; Potential Trend Scaffold Issues
- AR01720581; Control Room Door-61 Lower Sweep is Peeling Away
- AR01720873; Door 716 In Need of Repair
- AR01722922; Door 250 Was Not Closed
- AR01723184; Door 311 Creating Numerous Tamper Alarms
- AR01723960; Door 105B (Fire Door) Doesn't Automatically Close
- AR01725391; North CR Door's Seal is Missing Bottom Two Screws
- AR01725989; Door Handle Coming Apart to Security Hut

- AR01726688; Door-105B Requires Manual Force to Pull/Push It Shut
- AR01728420; Security Hut 4
- AR01728506; Door-716 Needs Replacement
- AR01729723; Loose Door Molding Protruding Into Walkway
- AR01729878; Door-250 From RP Checkpoint to U1 TH Does Not Shut
- AR01730688; Security Equipment Not Working as Designed
- AR01731404; Door 310 Not Functioning As Designed
- AR01733190; F-143 Handle Missing on Filter Door
- AR01733397; Door Handle Not Operating Correctly
- AR01733533; Door 29 Handle / Bolt Sticking
- AR01733748; Loose Handle Security Hut 04
- AR01734580; Door Does Not Secure With Handle
- AR01734595; Security Door Not Functioning As Designed
- AR01734615; DGB Door 102 Not Securing Properly
- AR01734875; Door-716 NSB North Entrance
- AR01734879; Door 321 Sticking Open
- AR01735415; Lockset Broken
- AR01735777; Security Identified Door #003 Unsecured
- AR01735777; Security Identified Door #003 Unsecured
- AR01736062; Potential Trend Plant Door Deficiencies
- AR01737972; Level 1 Escalation for Operations Fundamentals
- AR01739210; Security Open Door
- AR01739601; Security Door 344 Difficult to Operate
- AR01740313; Caps Not Timely Trend Coded
- AR01740391; Potential Trend App. R Handwheel Incorrectly Painted
- AR01741334; Door 006 Secondary Door Pull Chain Latch Release Broken
- AR01741948; NSB Door-301A
- AR01742647; PBNP Human Performance Health Index
- AR01751804; 1Q12 Green NCV Inadequate Operability For Doors
- AR01751811; 1Q12 NRC URI Perform a Review on the Operability of Doors
- AR017842693; Obstructed Door Unit 2 44' Level Non-Nuc Room
- AR01861967; Recent Issues Related to Operability / Functionality
- AR01904265; CR01751804, 1Q12 Grn NCV-Door Operability Missed Opportunity
- CE AR01861967; Examples Indicate No Thorough Understanding of Operability and Functionality Evaluations
- DBD-T-41; Hazards Internal and External Flooding (Module A); Revision 8
- EN-AA-203-1001-F04; NAMS AR Operability Notes Worksheet
- Lessons Learned Briefing on Operability / Functionality and Initial Screening
- NP 8.4.16; PBNP High Energy Line Break Barriers/Vent Paths; Revision 19
- NP 8.4.17; PBNP Flooding Barrier Control; Revisions 10 and 14
- NUREG-1022, Section 3.2.4; Degraded or Unanalyzed Condition; Revision 2
- OM 3.27; Control of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 50
- PBNP Consolidated Door List
- Quick Hit Assessment Report No. PB-SA-OPS-13-04; Operations Assessment of Training Performed on Operability/Functionality; March 5, 2013
- R01683813; Door Sweep Peeling Off Door 61
- RCE 01863113; Declining Trend Problem Identification & Resolution; June 10, 2013
- RMP 9011-1; Safe Shutdown Fire Door Inspections; Revision 16
- Trend CRs Initiated in 2012

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

- 1-SOP-19KV-001; Transformers 1X-01/1X-02 Outages and Electrical Operations; Completed August 19, 2013
- AOP-17A Unit 1; Rapid Power Reduction; Revision 19
- AR01895539; IS Capacitor Bank Contributing to Charging Pump Malfunctions
- AR01895055; 1P-2A Run Light is Blinking
- AR01895061; 1RC-427 Indicates Intermediate Following Attempted Closure
- AR01895061; 1RC-427 Indicates Intermediate Following Attempted Closure
- AR01895061; 1RD-427 Indicates Intermediate Following Attempted Closure
- AR01895062; CV-200A Indicates Intermediate Following Inadvert Ltdn Isol
- AR01895064; Status Level Change
- AR01895069; Loss of WPS Power to Water Treatment/EOF
- AR01895070; 1X-01C Cooler Unit 1 Failure Alarm In
- AR01895070; 1X-01C Cooler Unit 1 Failure Alarm In
- AR01895077; Water Treatment System Offline Due to No Power, Blowdown SEC
- AR01895098; SEL-Zone Removed From Service
- AR01895127; PAB Roof Radiological Postings Degraded Following Storm
- AR01895129; Line 121 Potential Indicating Light on Panel 6 Not Lit
- AR01895134; U1 Façade Exterior Blown Off During Storm
- AR01895134; U1 Façade Exterior Blown Off During Storm
- AR01895135; Z-319, Inland Met Tower Loss of Power
- AR01895178; Safety Monitor CDF Red for Both Units Electrical Transient
- AR01895187; Storm Damage U1 Façade
- AR01895187; Storm Damage U1 Façade
- AR01895189; Storm Damage Nitrogen Trailer Door
- AR01895196; ISFSI Surveillance Performed Post-Storm
- AR01895209; SBCC EOF Loss of Power Due to Storms
- AR01895209; SBCC EOF Loss of Power Due to Storms
- AR01895213; Licensed Operator Simulator Training Rescheduled
- AR01895214; Add Siren Pole Numbers to Procedure
- AR01895223; Walkdown of G-01/02 Missile Shield Superstructure
- AR01895233; Electrical Perturbations Caused Tripping of D07/D08 Chargers
- AR01895245; 8/7/13 Forced Outage Pager Response
- AR01895250; Storm Damage Missile Hazard Walkdown
- AR01895250; Storm Damage Missile Hazard Walkdown
- AR01895253; Unexpected "B" RCP Vibration Alarm
- AR01895259; Loss of Power to Sirens for Greater Than 50% Pop. Coverage
- AR01895259; Loss of Power to Sirens for Greater Than 50% Pop. Coverage
- AR01895260; 1B-01 Ground In for ~3 Minutes
- AR01895282; Switchyard Equipment Walkdown by SWYD Coord
- AR01895291; Assessment of EAL Thresholds For Storm On 8/7/13
- AR01895293; CREFS Declared Inoperable Due to System Components Shifting
- AR01895293; CREFS Declared Inoperable Due to System Components Shifting
- AR01895295; Unit 2 Unidentified Losses In Electrical Output
- AR01895297; ANS Regulatory Assessment Performance Test Not Performed
- AR01895298; Download Events From 51/Z-952
- AR01895302; Switchyard Equipment Walkdown Remove Leaves
- AR01895331; System Eng. Walkdown of Unit 1/2 Feedwater and Circ Wat Sys
- AR01895336; Electrical Perturbations Caused Tripping of Charging Pumps
- AR01895359; GE WT RO Train 2 Side 2 Electrical Supply Breaker Failed

- AR01895363; 1RD 427 Failed to Shut
- AR01895383; Valve Indication Is Not Working Properly
- AR01895391; 1W-4B Tripped on Electrical System Pertubation
- AR01895392; PAB Supply Fan W-35 During Plant Transient
- AR01895393; SSB Fan W-23 Tripped During Plant Transient
- AR01895394; Containment Cooling Fans Tripped During Plant Transient
- AR01895402; Check CLB For 08/07/13 System Grid Event
- AR01895413; Turbine Control Issues During Rapid Load Reduction
- AR01895463; EL-140 Didn't Remain Lit for the Duration of the 90 Minute Load Test
- AR01895464; EL-160
- AR01895467; EL-161 Didn't Remain Lit for the Duration of the 90 Minute Load Test
- AR01895473; EL-209 Didn't Remain Lit for the Duration of the 90 Minute Load Test
- AR01895475; No Condition Report Initiated for AOP 17A Entry
- AR01895518; EL-176 Didn't Remain Lit for the Duration of the Test
- AR01895530; Damage to a Structure on Line 151 Due to Storm
- AR01895601; G-03 / G-04 Façade Trip Pieces Need Replacement
- AR01895610; KPS Protocol for Notifying PB of Loss of Power and/or Alarms
- AR01895616; Loss of AC Power to Kewaunee Sirens in the Shared EPZ
- AR01895644; Turb Bldg Roof Dog House W-009 Trip Pieces Need Replacement
- AR01895677; Blown-Off Façade Siding Appeared to Have Missing Fasteners
- AR01895929; Additional Damage to Line 151 Structures Identified
- AR01896059; 345 kV Line 151 Repair
- AR01896473; U1 Façade Exterior
- AR01897056; Switchyard Knowledge Gaps Impacting Site Operations
- AR01897700; 1X-01 Phase C Fans Found Not Running
- AR01897701; Received 1X01 Gas Monitor High Concentration Alarm
- AR01897937; 1X-01-C Transformer Health After Loss of Cooling
- AR01898025; Following Forced Outage 1X-01-B Has Higher Temp Indications
- AR01898235; Winding Temperature Gauge is Stuck
- AR01898293; 1X-01B-TM, TTC Digital Display is Difficult to Read
- AR01898326; Contingency Plan for X33 Relay Replacement
- AR01898327; Contingency Plan for X33 Relay Replacement
- AR01898329; Contingency Plan for X33 Relay Replacement
- AR01898330; Contingency Plan for X33 Relay Replacement
- AR01898331; Contingency Plan for X33 Relay Replacement
- AR01898696; Review of ARB Guidance for X-01 Transformer Cooling Required
- AR01899157; 1TB-155, CAL Signal 1X-01 As-Found OOT
- ARB C02 D 1-0; 1X-01 Main Trans Phase A, B or C Loss of Cooling; Revision 7
- ARB C02 D 4-10; 1X-01 Main Trans Phase C Temperature High LV WD; Revision 8
- EN 49246; Loss of Power to Emergency Sirens and Power to Emergency Operations Facility Due to Severe Weather; August 7, 2013
- EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 12
- HSR Alarm Message Review; August 7, 2013
- PORC 2013-034; Plant Operations Review Committee Meeting; August 7, 2013
- Station Log; August 7, 2013
- Station Log; Various Dates August 6 to 19, 2013
- TS Bases B.3.8.9; Distribution Systems-Operating; Unit 1-Amendment 201; Unit 2-Amendment 206

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
AOP	Abnormal Operating Procedure
AR	Action Request
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
EAL	Emergency Action Level
EDG	Emergency Diesel Generator
FSAR	Final Safety Analysis Report
HELB	High Energy Line Break
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
kV	Kilovolt
LCO	Limiting Condition for Operation
MPT	Main Power Transformer
MREM	Millirem
MSPI	Mitigating Systems Performance Index
MW	Megawatt
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PCP	Process Control Program
PI	Performance Indicator
PMCR	Preventative Maintenance Change Request
PMT	Post-Maintenance Testing
PSIG	Pounds Per Square Inch Guage
RCS	Reactor Coolant System
REMP	Radiological Environmental Monitoring Program
SDP	Significance Determination Process
SER	Safety Evaluation Report
SI	Safety Injection
SL-IV	Severity Level IV
SSC	Systems, Structures, and Components
TLD	Thermoluminescent dosimeter
TS	Technical Specification
URI	Unresolved Item
WO	Work Order

L. Meyer

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Sincerely,

/RA/

Jamnes L. Cameron Chief Branch 6 **Division of Reactor Projects**

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

- Inspection Report 05000266/2013004; 05000301/2013004 Enclosure: w/Attachment: Supplemental Information
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Letter to Larry Meyer from Jamnes L. Cameron dated November 6, 2013

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000266/2013004; 05000301/2013004

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