

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

October 30, 2014

Mr. Eric McCartney 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 05000266/2014004; 05000301/2014004; AND

07200005/2014001

Dear Mr. McCartney:

On September 30, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on October 15, 2014, with you, and other members of your staff.

Based on the results of this inspection, four NRC-identified findings of very low safety significance were identified. Two of the findings involved a violation of NRC requirements. 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 these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555–0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission—Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532–4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; and the Resident Inspector Office at the Point Beach Nuclear Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Point Beach Nuclear Plant.

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 Cameron, Chief Branch 4 Division of Reactor Projects

Docket Nos. 50–266; 50–301; 72–005 License Nos. DPR–24; DPR–27

Enclosure:

IR 05000266/2014004; 05000301/2014004;

and 07200005/2014001

w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50–266; 50–301; 72–005

License Nos: DPR-24; DPR-27

Report No: 05000266/2014004; 05000301/2014004; and

07200005/2014001

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: Two Rivers, WI

Dates: July 1 through September 30, 2014

Inspectors: D. Oliver, Senior Resident Inspector

K. Barclay, Resident Inspector

J. Beavers, Emergency Preparedness Inspector

R. Edwards, Reactor Inspector, Materials Control, ISFSI, and Decommissioning Branch (MCID), Division of Nuclear

Materials Safety (DNMS)

M. Learn, Reactor Engineer, MCID, DNMS

V. Myers, Health Physicist

R. Morris, Senior Operator Licensing Examiner

J. Rutkowski, Project Engineer

Approved by: J. Cameron, Chief

Branch 4

Division of Reactor Projects

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000266/2014004, 05000301/2014004, 07200005/2014001; 07/01/2014–09/30/2014; Point Beach Nuclear Plant, Units 1 & 2; Fire Protection, and Operability Determinations and Functional Assessments.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Four Green findings were identified by the inspectors. Two of 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 (SDP)" dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas" effective date January 1, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated July 9, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process" Revision 5, dated February 2014.

Cornerstone: Initiating Events

• Green. The inspectors identified a finding of very low safety significance and associated NCV of license condition 4.F for the failure to conduct required fire watch inspections. Specifically, the licensee failed to inspect multiple fire zones at the correct frequency and to identify work activities that could introduce potential ignition sources, combustible materials, and other abnormal activities that could introduce an increased likelihood of a fire starting in the fire zone. The licensee implemented short term corrective actions, which included issuing guidance to personnel that prescribed a specific route and general timeframe for performing fire watch inspections, as well as, requiring the fire watches to initial for each individual fire zone for each inspection.

The finding was determined to be more than minor because the failure to conduct the required fire watch inspections was associated with the Initiating Events cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). The inspectors evaluated the finding in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Screening and Characterization of Findings," Table 3, "SDP Appendix Router." In Question 2 of Section E, "Fire Protection," the inspectors answered "Yes" to the screening question "Does the finding involve: 1) A failure to adequately implement fire prevention and administrative controls for transient combustible materials, transient ignition sources, or hot work activities?" Therefore, a detailed risk evaluation was performed by the Senior Reactor Analysts (SRAs) using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," and the licensee's preliminary NFPA-805 analyses as described in Section 1R05.1. Based on the detailed risk evaluation, the SRAs determined that the finding was of very low safety-significance. This finding has a cross-cutting aspect of Avoid Complacency (H.12), in the area of human performance, for failing implement appropriate error reduction tools. (Section 1R05.1)

Cornerstone: Mitigating Systems

• Green. The inspectors identified a finding of very low safety significance and associated NCV of license condition 4.F for the licensee's failure to identify a degraded water sprinkler system in the service water pump room and implement hourly fire watch inspections. Specifically, the licensee installed scaffolding in the service water pump room that interfered with the operation of the water sprinkler system and failed to implement hourly fire watch inspections as a compensatory measure. The licensee began fire watch inspections and credited installed fire hoses in the area for backup suppression until the planking could be removed from the scaffolding.

The finding was determined to be more than minor because the failure to identify the degraded sprinkler system and implement compensatory fire watch inspections was associated with the Mitigating Systems cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Mitigating Systems cornerstone. The finding degraded fire protection defense-in-depth strategies, and the inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process." The inspectors screened the issue to Green under the Phase 1 Screening Question 1.3.1-A, because the inspectors determined that the impact of a fire would be limited to one train/division of service water pumps and a credited safe shutdown path would be unaffected. This finding has a cross-cutting aspect of Procedure Adherence (H.8), in the area of human performance, because the licensee did not follow processes, procedures, and work instructions. (Section 1R05.1)

Green. The inspectors identified a finding of very low safety significance due to the licensee's failure to follow procedure EN-AA-203-1001, "Operability Determinations/Functionality Assessments." Specifically, when the licensee identified that the north non-vital switchgear (NVSGR) block wall was found to be non-seismic and potentially susceptible to collapsing and blocking the flood relief dampers, they failed to evaluate all potential water sources that could spray or flood the NVSGR and cascade into the vital switchgear room below. Following questions by the inspectors, the licensee evaluated the additional water sources; isolated two additional fire protection hose reels on the south side of the NVSGR; and updated the prompt operability determination (POD).

The finding was determined to be more than minor because the failure to evaluate and disposition each potential flood source in the POD was associated with the Mitigating Systems cornerstone attribute of Protection Against External Events (Seismic) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). 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 4, "External Events Screening Questions," dated June 19, 2012. The inspectors answered "Yes" to question 1 of External Events screening questions since the finding could potentially degrade one train of the emergency power system. The inspectors consulted the regional SRA, who completed a detailed risk evaluation, and determined that the finding

was of very low safety-significance. This finding has a cross-cutting aspect of Identification (P.1), in the area of problem identification and resolution, for failing to identify issues completely, accurately, and in a timely manner in accordance with the program. (Section 1R15.1)

Cornerstone: Barrier Integrity

• Green. The inspectors identified a finding of very low safety significance for deficiencies in licensee's calculation performed to support operability of the unit 1 containment building dome truss and the safety related components supported from the truss. The licensee reassessed the dome truss members and connections that were found to be highly stressed and concluded that the components remained within the acceptable limits. The licensee initiated action request (AR) 01986069 to capture the concern identified by the inspectors and revised the POD.

The finding was determined to be more than minor because the finding is associated with the reactor coolant system (RCS) Equipment and Barrier Performance Attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, failure of the dome truss could impact the reliability/availability of the containment spray system to maintain operability of the containment. Additionally, More than Minor Example 3.j of IMC 0612, Appendix E, "Examples of Minor Issues," was used to inform the answer to this more than minor screening question. Specifically, the licensee's failure to address torsional effects and use of non-conservative allowable stress values for evaluation of containment dome truss components, at the time of discovery, resulted in reasonable doubt of the operability of the subject walls. In accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Barrier Integrity cornerstone. As a result, the inspectors determined the finding could be evaluated using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 3. Because the finding did not represent an actual failure of a component required to maintain containment integrity, the inspectors answered "No" to Screening Questions 1 and 2 for the Reactor Containment section, and determined the finding was of very low safety significance. This finding has a cross-cutting aspect of Conservative Bias (H.14) in the area of human performance for the licensee's failure to use conservative decision making practices in the operability evaluation of the containment dome truss. (Section 1R15.1)

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit operated at or near full power for the inspection period, except for brief power reductions to conduct planned maintenance and surveillance activities.

Unit 2

The unit operated at or near full power for the inspection period, except for brief power reductions to conduct planned maintenance and surveillance activities, with one exception. On August 23, 2014, the unit shutdown to repair two reactor coolant system cold leg temperature detectors. The licensee conducted repairs and started the unit on August 25, 2014, and returned to full power on August 26.

REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 <u>Readiness For Impending Adverse Weather Condition—Heavy Rainfall/Flood Watch</u> Conditions

a. Inspection Scope

The inspectors evaluated implementation of adverse weather procedures and the readiness of staged materials for coping with the expected heavy rain and/or flooding conditions. The inspectors verified that operator actions defined in the adverse weather procedures maintained readiness of essential systems; that required surveillances were current prior to extreme weather conditions developing; and that the licensee performed periodic walk downs of equipment. The inspectors also confirmed that actions taken by the licensee in preparation for the expected heavy rainfall and flood watch did not adversely affect maintenance rule systems. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in Inspection Procedure (IP) 71111.01–05

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns (71111.04Q)

a. <u>Inspection Scope</u>

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

- G–04 Emergency Diesel Generator (EDG) alignment during G–02 EDG maintenance;
- Unit 1 turbine driven auxiliary feedwater pump following maintenance; and
- Unit 1 train B residual heat removal (RHR) with train A out-of-service (OOS).

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 procedures, system diagrams, Final Safety Analysis Report (FSAR), and Technical Specification (TS) requirements 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 IP 71111.04–05.

b. Findings

No findings were identified.

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

a. <u>Inspection Scope</u>

On September 18, 2014, the inspectors performed a complete system alignment inspection of the unit 2 component cooling water (CCW) 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 work orders (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 <u>Fire Protection</u> (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. <u>Inspection Scope</u>

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

- Fire Zone 138: Boric Acid Evaporator Room–North (1P-53 MDAFW Pump);
- Fire Zone 139: Boric Acid Evaporator Room–South (2P-53 MDAFW Pump);
- Fire Zone 552: Service Water Pump House; and
- Fire Zone 553: Circ. Water Pump 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 OOS, 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

1) Failure to Identify Degraded Water Sprinkler System

Introduction: A finding of very low safety significance and associated NCV of license condition 4.F was identified by the inspectors for the licensee's failure to identify a degraded water sprinkler system in the service water pump room and implement hourly fire watch inspections. Specifically, the licensee installed scaffolding in the service water pump room that interfered with the operation of the water sprinkler system and failed to implement hourly fire watch inspections as a compensatory measure.

<u>Description</u>: During a tour of the service water pump house, the inspectors noted a significant amount of scaffolding constructed in the service water pump room. The inspectors were concerned that the scaffold and planking impaired the sprinkler system's ability to mitigate a fire and informed the licensee of their concerns. The licensee's fire protection engineers evaluated the room and confirmed that the extensive amount of scaffold planking impaired the ability of the water sprinkler system to mitigate fires. The licensee implemented fire watch inspections until they were able to remove the planking from the scaffolding and restore the operability of the fire protection sprinkler system.

The licensee's review of the issue found that during the construction and subsequent inspection of the scaffolding they failed to follow procedure MA–AA–100–1002, "Scaffold Installation, Modification, and Removal Requests." Specifically, Section 4.4.2, Fire Protection, states, in part, that scaffolding shall not block or interfere with the operability of a Fire Protection System or their components (e.g., sprinklers, detectors, emergency lighting, hose reels etc.) or block ingress or egress areas (e.g., stairwells, hallways, doorways) unless appropriate compensatory measures are in place. Section 4.4.2, Step 1.A further states, in part, in an area with fire protection sprinklers, a scaffold interferes with a sprinkler if: (2) Scaffold platform is over 48 inches wide in its narrower dimension. The licensee confirmed that some of the scaffolding was over 48 inches in its narrowest dimension and compensatory measures were not in place. The licensee began fire watch inspections and credited installed fire hoses in the area for backup suppression until the planking could be removed from the scaffolding.

<u>Analysis</u>: The inspectors determined that failure to identify the degradation of the water sprinkler system and implement the required fire watch inspections was contrary to the licensee's Fire Protection Evaluation Report (FPER) and was a performance deficiency. The finding was determined to be more than minor because the failure to identify the degraded sprinkler system and implement compensatory fire watch inspections was associated with the Mitigating Systems Cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage).

In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Mitigating Systems cornerstone. The finding degraded fire protection defense-in-depth strategies, and the inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process." The inspectors screened the issue to Green under the Phase 1 Screening Question 1.3.1–A, because the inspectors determined that the impact of a fire would be limited to one train/division of service water pumps and a credited safe shutdown path would be unaffected.

This finding has a cross-cutting aspect of Procedure Adherence (H.8), in the area of human performance, because the licensee did not follow processes, procedures, and work instructions. Specifically, the licensee did not follow the instructions in procedure MA–AA–100–1002, which prohibited blocking or interfering with the operability of a Fire Protection System or their components unless appropriate compensatory measures are in place.

<u>Enforcement</u>: License condition 4.F for both Unit 1 and Unit 2 required the licensee to implement and maintain in effect all provisions of the approved fire protection

program as described in the FSAR and Safety Evaluation Report dated August 2, 1979, (and Supplements dated October 21, 1980, January 22, 1981, and July 27, 1988) and the Safety Evaluation Report issued January 8, 1997, for TS Amendment No. 170 and No. 174. Section 9.10 of the FSAR stated that the FPER was incorporated into the FSAR by reference. Section 8.1.3.A.2(a) of the FPER stated that the water sprinkler systems listed in Table 8.1–1, Safe Shutdown Area Fire Protection, shall be operable whenever equipment protected by the system is required to be operable. The service water pumps were listed as item number 14 in Table 8.1–1 and were required to be operable during the timeframe in question. Section 8.1.3.A.2(b) of the FPER stated, in part, that a water sprinkler system listed in Table 8.1–1 may be inoperable provided that within one hour of determining that one or more of the required sprinkler systems are inoperable, for those areas in which redundant systems or components could be damaged, establish an hourly fire watch inspection and provide backup fire suppression capability. For other areas, establish an hourly fire watch.

Contrary to the above, from June 16, 2014 until July 1, 2014, the licensee had scaffolding installed in the service water pump room that rendered the water sprinkler system inoperable without the hourly fire watch inspections in place. Because this violation was of very low safety significance and it was entered into the licensee's CAP as AR 01975811, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2014004–01; 05000301/2014004-01, Failure to Identify Degraded Water Sprinkler System).

2) Failure to Perform Required Fire Watch Inspections

Introduction: A finding of very low safety significance and associated NCV of license condition 4.F was identified by the inspectors for the failure to conduct required fire watch inspections. Specifically, the licensee failed to inspect multiple fire zones at the correct frequency and to identify work activities that could introduce potential ignition sources, combustible materials, and other abnormal activities that could introduce an increased likelihood of a fire starting in the fire zone.

<u>Description</u>: While reviewing fire watch inspection records against security key card records the inspectors observed that some hourly fire watch inspections were being performed at the end of 1 hour and then again a few minutes later into the next hourly timeframe. In one case, the inspectors observed that an individual entered a room shortly before 10:00 and exited the same room just after 10:00 crediting this single entry for the 9:00–10:00 inspection, as well as, the 10:00–11:00 inspection. The inspectors discussed this observation with the licensee who communicated that the practice of inspecting at the end of 1 hour and the beginning of the next did not meet the station's expectations.

The licensee performed an extent of condition review of fire watch inspections performed between June 14 and June 23, 2014, and discovered that eight individual fire watch inspections had not been completed as required between June 16 and June 22. The licensee interviewed all individuals involved and determined that none of the fire rounds were knowingly missed. The inspectors' review of the fire rounds tracking sheet found that they only required one initial for each hourly or 4 hour inspection that represented inspecting multiple fire zones. In one case, one initial represented forty-seven separate fire zone inspections. The inspectors concluded that signing once for multiple individual fire watch inspections presented an error likely situation; however, the fire watch

performance sheet listed all applicable zones on the back of the form. The inspectors also determined that the individuals performing the fire watches failed to implement appropriate human performance error reduction tools. The licensee implemented short term corrective actions, which included issuing guidance to personnel that prescribed a specific route and general timeframe for performing fire watch inspections, as well as, requiring the fire watches to initial for each individual fire zone for each inspection.

<u>Analysis</u>: The inspectors determined that failure to inspect the fire zones was contrary to FPER Section 9.3 and was a performance deficiency. The finding was determined to be more than minor because the failure to conduct the required fire watch inspections was associated with the Initiating Events cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage).

The inspectors evaluated the finding in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Screening and Characterization of Findings," Table 3, "SDP Appendix Router." In Question 2 of Section E, "Fire Protection," the inspectors answered "Yes" to the screening question "Does the finding involve: 1) A failure to adequately implement fire prevention and administrative controls for transient combustible materials, transient ignition sources, or hot work activities?" Therefore, a detailed risk evaluation was performed by the SRAs using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," and the licensee's preliminary NFPA-805 analyses as described below. The SRAs used information obtained from the licensee's preliminary NFPA-805 analyses to perform a delta risk evaluation for the issue of the missed fire watches. This information was considered to be the latest and best information available. The SRAs used a sampling of information on missed fire watches from a 10-day time period (from June 14 to June 23, 2014) to develop a delta risk estimate for the issue. The exposure time for the finding was assumed to be approximately 6 months (i.e., from January through June 2014). The table below provides a summary of the information obtained, including:

- Fire Zones that had a missed fire watch;
- Type of missed fire watch (e.g., hourly or every 4 hours);
- The number of missed fire watches;
- The probability of a missed fire watch over the 10-day (240-hour) period;
- The transient fire frequency for the affected fire zones;
- The type of fire suppression for the fire zone and the associated non-suppression probability (NSP); and
- The conditional core damage probability (CCDP) for the transient fire. The maximum CCDP was used for the range of transient fire scenarios for each fire zone.

Fire Zone #	Description of Fire Zone	# of Missed Fire Watches	Type of Missed Fire Watch [hour(s)]	Probability of Missed Fire Watch	Transient Fire Frequency (1/yr)	Type of Suppression in Fire Zone	NSP	CCDP (Max)	Exposure Time (Fraction of year)	∆CDF (1/yr)
250	U1 HVAC Equip Room	2	4	3.33E-2	1.5E-3	None	1.0	1.6E-6	0.5	4.0E- 11
304N	North AFW Pump Room	4	1	1.67E-2	2.11E-4	Halon	5E-2	2.2E-2	0.5	1.9E- 9
304S	South AFW Pump Room	4	1	1.67E-2	2.11E-4	Halon	5E-2	8.8E-3	0.5	7.8E- 10
305	Vital Switchgear Room	1	1	4.17E-3	9.83E-5	Halon	5E-2	4E-3	0.5	4.1E- 11
308	G01 EDG Rm	1	4	1.67E-2	2.11E-4	Wet Pipe Sprinkler	2E-2	5E-5	0.5	1.8E- 12
309	G02 EDG Rm	1	4	1.67E-2	2.11E-4	Wet Pipe Sprinkler	2E-2	5E-4	0.5	1.8E- 11
									Total ∆CDF =	2.8E- 9

The result was a delta core damage frequency (△CDF) of 2.8E-9/yr.

Therefore, based on the detailed risk evaluation, the SRAs determined that the finding was of very low safety-significance (Green).

This finding has a cross-cutting aspect of Avoid Complacency (H.12), in the area of human performance, for failing to implement appropriate error reduction tools. Specifically, individuals conducting fire watch inspections initialed for completing fire zone inspections, when in some cases, not all affected fire zones were inspected.

<u>Enforcement</u>: License condition 4.F for both Unit 1 and Unit 2 required the licensee to implement and maintain in effect all provisions of the approved fire protection program as described in the FSAR and Safety Evaluation Report dated August 2, 1979, (and Supplements dated October 21, 1980, January 22, 1981, and July 27, 1988) and the Safety Evaluation Report issued January 8, 1997, for TS Amendment No. 170 and No. 174. Section 9.10 of the FSAR stated that the FPER was incorporated into the FSAR by reference. Section 9.3 of the FPER states, in part, that Compensatory Measures Fire Watches (CMFW) shall be responsible for inspecting fire zones for the following:

- 1) Combustible materials that are not normally located in the fire zone that may present a fire exposure to cables or equipment in the room if they were to become ignited.
- Work activities in the fire zone that will introduce a potential ignition source presenting a fire exposure to cables or equipment in the area.
- 3) Any other abnormal activities in the fire zone that could introduce an increased likelihood of a fire starting in the fire zone.

Contrary to the above, from June 16, 2014 until June 22, 2014, the licensee failed to inspect multiple fire zones at the correct frequency for: work activities that could introduce potential ignition sources; combustible materials; and other abnormal activities that could introduce an increased likelihood of a fire starting in the fire zone. Because this violation was of very low safety significance and it was entered into the licensee's CAP as AR 01976529, this violation is being treated as an NCV, consistent with

Section 2.3.2 of the NRC Enforcement Policy (NCV 05000266/2014004–02; 05000301/2014004–02, Failure to Perform Required Fire Watch Inspections).

1R07 <u>Annual Heat Sink Performance</u> (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of HX–55A, the G–01 EDG coolant heat exchanger to verify the heat exchanger's readiness and availability. The inspectors accomplished this by observing the licensee's heat exchanger inspection and also visually verifying the cleanliness of the heat exchanger tubes. Documents reviewed for this inspection are listed in the Attachment to this document.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07–05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. <u>Inspection Scope</u>

On September 15, 2014, the inspectors observed the licensed operators annual operating examination for crew F 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 and satisfied the inspection program requirement for the resident inspectors to observe a portion of an in-progress annual

requalification operating test during a training cycle in which it was not observed by the NRC during the biennial portion of this IP.

b. Findings

No findings were identified.

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

a. Inspection Scope

On August 25, 2014, the inspectors observed a reactor startup of the unit 2 reactor following the repair of 2TE-451A/C. The reactor startup was an activity that required heightened awareness and had an associated increased risk. The inspectors evaluated the following areas:

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

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.

.3 <u>Annual Operating Test Results</u> (71111.11A)

a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the Annual Operating Exam administered by the licensee from August 11 through September 24, 2014, required by 10 CFR 55.59. The results for the exam were compared to the thresholds established in IMC 0609, Appendix I, "Licensed Operator Requalification Significance Determination Process (SDP)," to assess the overall adequacy of the licensee's Licensed Operator Requalification Training (LORT) Program to meet the requirements of 10 CFR 55.59. (02.02)

This inspection constituted one sample of the licensed operator requalification program annual operating exam inspection as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.4 <u>Biennial Review</u> (71111.11B)

a. Inspection Scope

The following inspection activities were conducted during the week of September 22, 2014, to assess: 1) the effectiveness and adequacy of the facility licensee's implementation and maintenance of its systems approach to training based LORT Program put into effect to satisfy the requirements of 10 CFR 55.59; 2) conformance with the requirements of 10 CFR 55.46 for use of a plant referenced simulator to conduct operator licensing examinations and for satisfying experience requirements; and 3) conformance with the operator license conditions specified in 10 CFR 55.53. The documents reviewed are listed in the Attachment to this report.

- Licensee Requalification Examinations (10 CFR 55.59(c); Systems Approach To Training Element 4 as Defined in 10 CFR 55.4): The inspectors reviewed the licensee's program for development and administration of the LORT biennial annual operating tests to assess the licensee's ability to develop and administer examinations that are acceptable for meeting the requirements of 10 CFR 55.59(a).
 - The inspectors conducted a detailed review of one Job Performance Measure (JPM) and two dynamic simulator scenarios to assess content, level of difficulty, and quality of the operating test materials. (02.04)
 - The inspectors observed the administration of the annual operating test to assess the licensee's effectiveness in conducting the examination(s), including the conduct of pre-examination briefings, evaluations of individual operator and crew performance, and post-examination analysis. The inspectors evaluated the performance of two simulator crews in parallel with the facility evaluators during three dynamic simulator scenarios and evaluated various licensed crew members concurrently with facility evaluators during the administration of one JPM. (02.05)
- Conformance with Examination Security Requirements (10 CFR 55.49): The inspectors conducted an assessment of the licensee's processes related to examination physical security and integrity (e.g., predictability and bias) to verify compliance with 10 CFR 55.49, "Integrity of Examinations and Tests." The inspectors reviewed the facility licensee's examination security procedure, and observed the implementation of physical security controls (e.g., access restrictions and simulator input/output controls) and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the partial inspection period. (02.06)
- Problem Identification and Resolution (10 CFR 55.59(c); Systems Approach to <u>Training Element 5 as Defined in 10 CFR 55.4</u>): The inspectors assessed the licensee's ability to identify, evaluate, and resolve problems associated with licensed operator performance (a measure of the effectiveness of its LORT

Program and their ability to implement appropriate corrective actions to maintain its LORT Program up-to-date). The inspectors reviewed documents related to licensed operator performance issues (e.g., recent examination and licensee condition/problem identification reports including documentation of issues during this annual regualification exam). (2.10)

Observations

Emergency Plan Implementation: The inspector observed an operations crew in the simulator during the annual requalification scenario. The crews did not include update notifications as required by the Emergency Plan as conditions in the plant changed. This was not a critical task and was discussed during the critique sessions. The licensee entered the issue into their training assessment program and will perform enhancement training during the coming cycle.

Remedial Training Assessment: The inspectors reviewed the licensee's self-assessment of the remedial training that had been provided due to a failure of a portion of the last requalification exam. The remedial training meet the requirements of a systems approach to training based training program.

This inspection was a partial Biennial Licensed Operator Requalification Program inspection as defined in IP 71111.11–05 and did not count as a complete sample.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations

a. Inspection Scope

The inspectors reviewed the licensee's 2013 periodic evaluation (PE) to confirm the following:

- the PE was completed within the time constraints required by 10 CFR 50.65 (a)(3) of the maintenance rule;
- the PE included a review of the licensee's (a)(2) performance criteria,
 (a)(1) goals, monitoring, preventative maintenance activities, and effectiveness of corrective actions:
- that industry operating experience was taken into account where practicable;
- that the licensee makes appropriate adjustments as a result of the PE; and
- if applicable to the licensee's maintenance rule program, that the licensee balanced reliability and availability/unavailability.

In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly maintenance effectiveness samples as defined in IP 71111.12–05.

b. Findings

No findings were identified.

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

.1 Maintenance Risk Assessments and Emergent Work Control

a. <u>Inspection Scope</u>

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:

- July 25, service water pump P–32A and battery bus D–05 OOS, with emergent repairs to restore inverter 1DY–03;
- July 30, G–03 EDG maintenance with switchyard factor;
- August 22, G–01 EDG maintenance and main turbine trip testing; and
- September 29, Unit 1 B train SI pump, B train RHR pump, and G–05 gas turbine generator OOS.

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 during this inspection are listed in the Attachment to this report. These maintenance risk assessments and emergent work control activities constituted four 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. <u>Inspection Scope</u>

The inspectors reviewed the following issues:

- POD 01887365; Escalation for Resolving Containment Dome Truss Issue;
 Revision 0 and 1;
- POD 1962836; Unit 1 Dome Truss and Containment Gap is Less Than Expected;

- POD 01874489; Vacuum Relief Valve Failed As-Found Test-IST Program, Revision 1;
- POD 01987349; D–106 Cell 28-29 Inter-Tier Connection Cables;
- POD 01941977; Reduced EDG Radiator Capacity, Revisions 0 and 1;
- POD 01977210; Internal Flood Protection of VSGR and CSR Questioned;
- FA 01979022; B5B Pump Does Not Pass 0-PT-FP-14; and
- POD 1948109; Internal Flooding Hazards Not Fully Evaluated; Revisions 1 and 2.

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 eight samples as defined in IP 71111.15–05.

b. Findings

1) Deficiencies in Calculation Performed to Support Containment Dome Truss Operability

<u>Introduction</u>: A finding of very low safety significance (Green) was identified by the inspectors for deficiencies in the licensee's calculation performed to support operability of the unit 1 containment building dome truss and the safety related components supported from the truss.

<u>Description</u>: In response to NRC inspectors' question during a Component Design Basis Inspection in August, 2011, the licensee initiated AR 01677914 when documentation for the seismic evaluation of the unit 1 containment dome truss for loads from containment spray piping supported from the truss could not be found. The licensee determined, based on a review of the existing truss seismic analysis for self-weight only, that the dome truss would be able to support the additional piping loads from the containment spray piping. Follow-up investigations conducted by the licensee; however, revealed discrepancies between the as-built and analyzed truss configurations. These discrepancies had an adverse impact on the truss analysis and were documented in AR 01750123. The licensee commissioned a formal evaluation to be conducted by Stevens & Associates to support an initial operable but non-conforming determination, which was documented in calculation 11Q0060–C–001, Revision 0. During a review of the calculation 11Q0060–C–001, the inspectors identified the following deficiencies:

 When evaluating the truss members supporting the containment spray pipe anchor type supports, the evaluations did not address the torsional effect of load caused by cantilever lengths of the pipe support. The licensee's evaluation indicated that the shear stresses in the truss member at some locations could be as high as 53 kips per square inch (ksi). Structural steel material used for the subject truss members was per American Society of Testing and Materials (ASTM) A36 with yield point and tensile strength of 36 ksi and 58 ksi respectively. Using a 2/3 factor (see note below), the shear yield point and ultimate strength would be 24 ksi and 38.7 ksi respectively, indicating that the shear stresses could exceed the material ultimate shear capacity.

• The evaluation of connections in the calculation indicated that bolt shear stresses were greater than 100 ksi in many cases with 129 ksi being the maximum. The bolt material used was ASTM A325 with yield point and tensile strength of 92 ksi and 120 ksi respectively. Using a 2/3 factor (see note below), the shear yield point and ultimate strengths would be 61.3 ksi and 80 ksi respectively, indicating that the bolt shear stresses could exceed the bolt ultimate shear capacity.

Note: Shear allowable stresses in the American Institute of Steel Construction (AISC) specifications, typically used for all structural steel design (including Point Beach and other nuclear plants) are generally based on the 2/3 factor as indicated above. Per commentary in Section F4 of the AISC specification in the 9th edition of the Manual of Steel Construction, shear yield has been variously estimated as between 1/2 and 5/8 of the tension and compression yield and is frequently taken as $1/\sqrt{3}$ (=0.58).

The licensee calculation, in the case of the above examples, did not provide adequate justification for acceptance of the calculated stresses exceeding the structural capacity of the components. In response to the inspectors' concerns regarding the available safety margins indicated by the evaluation in general and for the above components, the licensee performed additional calculations to demonstrate a reasonable safety margin to support the operability of the dome truss. The licensee's effort included calculations to generate new floor response spectra for the dome truss support location at the 125 foot elevation of the containment for use in the operability analysis. The previous analysis was based on seismic spectra approximated from those at a lower elevation as the licensee design specifications did not include spectra at the dome truss elevation. New soil structure analysis performed utilizing the actual site soil properties resulted in lower seismic accelerations at the dome truss location. The licensee used the new spectra to reassess the members and connections that were found to be highly stressed in the previous analysis and concluded that the components remained within the acceptable limits. The licensee initiated AR 01986069 to capture the concern identified by the inspectors and revised the POD.

<u>Analysis</u>: The inspectors determined that failure to consider the effect of torsional loads, and the structural acceptance of the truss members and connections with stresses exceeding the material strength limits based on the ASTM standards were contrary to the actual pipe support configuration and to the standard practice of structural design and constituted a performance deficiency. A review of the containment spray piping support configuration and of the calculation would have identified and corrected the deficiencies identified by the inspectors.

The finding was determined to be more than minor because the finding is associated with the RCS Equipment and Barrier Performance attribute of the Barrier Integrity

cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, failure of the dome truss could impact the reliability/availability of the containment spray system to maintain operability of the containment. Additionally, More than Minor Example 3.j of IMC 0612, Appendix E, "Examples of Minor Issues," was used to inform the answer to this more than minor screening question. Specifically, the licensee's failure to address torsional effects and use of non-conservative allowable stress values for evaluation of containment dome truss components, at the time of discovery, resulted in reasonable doubt of the operability of the subject walls. In accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Barrier Integrity cornerstone. As a result, the inspectors determined the finding could be evaluated using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings-At-Power," Exhibit 3. Because the finding did not represent an actual failure of a component required to maintain containment integrity, the inspectors answered "No" to Screening Questions 1 and 2 for the Reactor Containment section, and determined the finding was of very low safety significance (Green).

This finding has a cross-cutting aspect of Conservative Bias (H.14) in the area of human performance for the licensee's failure to use conservative decision making practices in the operability evaluation of the containment dome truss. Specifically, the licensee used non-conservative assumptions regarding the effect of the torsional loading and steel allowable stresses in the evaluation of containment dome truss, which could not be justified.

<u>Enforcement</u>: This finding does not involve enforcement action because no violation of a regulatory requirement was identified. Because this finding does not involve a violation and is of very low safety significance, it is identified as a FIN (FIN 05000266/2014004–03; 05000301/2014004–03, Deficiencies in Calculation Performed to Support Containment Dome Truss Operability).

2) Incomplete Prompt Operability Determination of Non-Seismic Block Wall

Introduction: The inspectors identified a finding of very low safety significance (Green) due to the licensee's failure to follow procedure EN–AA–203-1001, "Operability Determinations/Functionality Assessments." Specifically, when the licensee identified that the north NVSGR block wall was found to be non-seismic and potentially susceptible to collapsing and blocking the flood relief dampers, they failed to evaluate all potential water sources that could spray or flood the NVSGR and cascade into the vital switchgear room below. Following questions by the inspectors, the licensee evaluated the additional water sources and isolated two additional fire protection hose reels on the south side of the NVSGR.

<u>Description</u>: During the inspectors' review of POD 1977210, "Internal Flood Protection of VSGR and CSR Questioned," the inspectors questioned the thoroughness of the evaluation to consider all effects of the condition, including potential failure modes, on the ability of the structures, systems and component (SSCs) to perform related support functions. Specifically, POD 1977210, was completed after the licensee determined that the north NVSGR block wall was not seismically qualified. In the POD, the licensee assumed that the wall would fail and block the flood relief dampers located at the base of

the wall. As a compensatory measure, the licensee isolated two fire protection hose reel pipes that passed through the wall in question to prevent uncontrolled flooding if the wall collapsed on and ruptured the fire protection piping. Additionally, the licensee had a vendor perform an analysis of the block wall. The inspectors walked the area down to confirm that the fire protection lines were properly isolated such that a wall collapse could not damage the piping at the isolated points. During the walk down, the inspectors identified two additional non-seismic six inch pipes that were located behind the block wall, outside of the NVSGR, that after a wall collapse could be capable of spraying water into the NVSGR. Additionally, the inspectors questioned why two non-seismic fire hose reels located on the south end of the NVSGR were not evaluated as a potential flooding source in the POD. The inspectors' reviewed the licensee's FSAR, Appendix A.7, Plant Internal Flooding, and confirmed that the licensee must be able to withstand a failure of a non-seismic category 1 component and be able to safely shutdown the plant. The inspectors' review confirmed that the single failure of a non-seismic category 1 component was not limited to those components that would be damaged by the wall collapsing, but could be any of the non-seismic category 1 components exposed to the NVSGR. The FSAR specifically stated that there is no failure of a seismic Category 2 or 3 component that could result in a flooding condition that could adversely affect equipment needed to get the plant to safe shutdown. The inspectors also reviewed EN-AA-203-1001, and found that in attachment 5, "Guidance for Completion of Prompt Operability Determination (POD) Form (EN-AA-203-1001-F01)," Step 5 states, in part, evaluate the effects of [the] condition, including potential failure modes, on the ability of the SSC to perform its specified safety function and related support functions. The inspectors concluded that the licensee needed to evaluate the additional non-seismic category 1 components that were exposed if the wall collapsed, and the additional fire protection hose reels in the NVSGR room, to confirm that they were still in compliance with their internal flooding licensing basis. In response to the inspectors' questions, the licensee reviewed the additional water sources and concluded that the addition of water sources should have been evaluated and documented in the POD. The licensee isolated the second set of fire protection hose reels and evaluated the effects of the failure of either of the two additional pipes adjacent to the block wall. Furthermore, the vendor analysis concluded that the non-seismic wall would not fail catastrophically.

Analysis: The inspectors determined that the licensee's failure to evaluate and disposition all of the potential pipe breaks in or near the NVSGR and confirm that they were in compliance with their internal flooding licensing basis was not in accordance with EN-AA-203-1001, Attachment 5, Step 5, and was a performance deficiency warranting further review. The finding was determined to be more than minor because the failure to evaluate and disposition each potential flood source in the POD was associated with the Mitigating Systems cornerstone attribute of Protection Against External Events (Seismic) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage).

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 4, "External Events Screening Questions," dated June 19, 2012. The inspectors answered "Yes" to question 1 of External Events screening questions since the finding could potentially degrade one train of the emergency power system. Thus the inspectors consulted the regional SRA.

To evaluate this finding, the SRAs evaluated an event that could concurrently result in the failure of a fire protection water pipe in the NVSGR and a failure of the masonry block wall in the room. A seismic event was identified as a condition that can result in the failure of both the masonry wall in the NVSGR room and failure of the fire protection system piping in the room. From the Point Beach Individual Examination of External Events (and Calculation No. 0292-0046-0001), the seismic capacity of the masonry block wall can be taken to be 0.55g. Using guidance from NRC's Risk Assessment Standardization Project (RASP) handbook, only the "Bin 2" seismic events were assumed to represent a delta core damage frequency (ΔCDF). "Bin 2" is defined in the RASP handbook as seismic events with intensities greater than 0.3g but less than 0.5g. Earthquakes of lesser severity are unlikely to result in large pipe failures and earthquakes of a larger magnitude could result in major structural damage throughout the plant which would not be representative of a risk due to the performance deficiency. The initiating event frequency (IEF) of an earthquake in "Bin 2" was estimated to be 1.29E-5/yr for Point Beach using Table 4A-1 of Section 4 of the RASP handbook. Using the seismic capacity of 0.55g, a failure probability of 1.90E-1 was obtained for the masonry block wall.

The following assumptions were made for the Δ CDF evaluation:

- A seismic event is expected to result in a loss-of-offsite-power (LOOP) event. A
 conservative assumption was made that offsite power is not restored during the
 first 24 hours.
- It was assumed that if the masonry block wall failed in the NVSGR room that the fire protection water pipe in the room would also fail.
- It was conservatively assumed that 100 percent of the time the fire protection system water leak in the NVSGR room: (1) would not be able to drain through the flood relief flow-paths because of the damaged masonry block wall failure, and (2) the water would then spill over to the VSGR room, and be a large enough leak to flood the VSGR room and result in the failure of all risk significant equipment in the VSGR room before the leak could be isolated or diverted. This equipment includes: (1) Battery Chargers D07, D08, and D09; (2) Non-Essential Buses 1(2) A03 and 1(2) A04; (3) Train A Essential Busses 1(2) A05; (4) the D01 and D02 125 VDC Distribution Panels; and the (5) K–2A instrument air compressor. In addition, the 1P53 Motor-Driven Auxiliary Feedwater Pump (which is fed power from Bus 2AP05) was assumed failed as a surrogate for the risk evaluation for Unit 2, since the Point Beach standardized plant analysis risk (SPAR) model is a Unit 1 model.
- The exposure time for the finding was assessed to be the maximum of 1-year as allowed by the NRC's RASP handbook.

The Point Beach SPAR model version 8.22 and Systems Analysis Programs for Hands-on Integrated Reliability Evaluations version 8.1.0 software was used to obtain a CCDP for a LOOP with no offsite power recovery. The result for this base case was a CCDP of 2.2E–5. The SPAR model was then used to evaluate the CCDP for a LOOP with no offsite power recovery and the failure of the risk significant

equipment in the VSGR room. The result for this deficient case was a CCDP of 2.81E-1. The delta CCDP (Δ CCDP) is the difference between the CCDP for the deficient case and the CCDP for the base case or 2.81E-1.

A bounding value for the delta core damage frequency (\triangle CDF) was obtained as the product of the following factors:

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\DeltaCDF = [IEF]x[Prob wall failure]x[Prob FP pipe failure]x[Prob VSGR flooding]x[\DeltaCCDP]x[ET] = [1.29E-5/yr] x [1.90E-1] x [1.0] x [1.0] x [2.81E-1] x [1.0] = 6.9E-7/yr
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A bounding Δ CDF of 6.9E-7/yr was estimated for the seismically-induced flooding of the NVSGR room during a seismic event with the performance deficiency identified above. The dominant core damage sequence is a LOOP initiating event with a failure of the Diesel-Driven Fire Pump (P–35B) to run.

Since the total estimated change in core damage frequency was greater than 1.0E–7/yr, IMC 0609 Appendix H, "Containment Integrity Significance Determination Process" was used to determine the potential risk contribution due to large early release frequency (LERF). Each Point Beach Unit is a 2-loop Westinghouse pressurized water reactor (PWR) with a large dry containment. Sequences important to LERF include steam generator tube rupture events and inter-system loss-of-coolant-accident (LOCA) events. These were not the dominant core damage sequences for this finding.

Based on the Detailed Risk Evaluation, the inspectors determined that the finding was of very low safety significance (Green).

This finding has a cross-cutting aspect of Identification (P.1), in the area of Problem Identification and Resolution, for failing to identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, the licensee failed to identify and evaluate all potential flooding sources and their effect considering a potential collapsed wall that blocked the flood relief paths.

<u>Enforcement</u>: This finding does not involve enforcement action because no violation of a regulatory requirement was identified. As corrective actions, the licensee isolated the additional fire protection piping, evaluated the additional potential water sources, updated the POD, and entered this issue into the CAP as AR 01996781 and AR 01999138. Because this finding does not involve a violation and is of very low safety significance, it is identified as a FIN (FIN 05000266/2014004–04 / 05000301/2014004–04, Incomplete Prompt Operability Determination of Non-Seismic Block Wall).

1R19 <u>Post-Maintenance Testing</u> (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:

- Wide Range Cold Leg Resistance Temperature Detectors (RTD) 2TE–451A/C testing after replacement;
- P–32D Service Water (SW) Pump testing after replacement;
- G-03 EDG testing after Kiene valve replacement;
- 1XY–113 transformer testing after replacement;
- D–05 battery testing after cell replacement;
- G–01 EDG testing after maintenance; and
- 1P–10A RHR pump after maintenance.

These activities were selected based upon the structure, system, or component's 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.

1R20 Outage Activities (71111.20)

.1 Other Outage Activities

a. <u>Inspection Scope</u>

The inspectors evaluated outage activities for an unscheduled unit 2 outage associated with the repair of 2TE–451A/C that began on August 23, 2014, and continued through August 25, 2014. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown, outage equipment configuration and risk management, electrical lineups, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage. This outage was conducted to effect repairs of the TS 3.3.3 required post-accident monitoring wide range cold leg RTD, additionally, while the unit was in mode 3, the licensee made measurements between the unit 2 containment dome

truss and the containment liner to assess assumptions made during previous operability determinations regarding unit 1 and 2 containments. Inspectors reviewed the maintenance plan, post-maintenance tests for the RTD repair, and reviewed the measurements, associated vendor documents and revisions made to the licensee's POD for the unit 2 containment dome truss.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one other outage sample as defined in IP 71111.20–05.

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:

- RMP 9359–6B, D–106 Station Battery Modified Performance Test (Routine);
- 2ICP 02.032, 2P–29 AFW Suction Header Pressure Trip Channel Operability Test (Routine);
- IT 03 Train A, Low Head Safety Injection Pumps and Valves, Unit 1 (Routine);
 and
- IT 13 Train B, 2P-11B, CCW Pump and Valves, Unit 2 (Inservice test).

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 were 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 USAR, 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 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, and one inservice testing sample as defined in IP 71111.22, Sections–02 and–05.

b. <u>Findings</u>

No findings were identified.

1EP2 Alert and Notification System Evaluation (71114.02)

.1 Alert and Notification System Evaluation

a. Inspection Scope

The inspectors held discussions with Emergency Preparedness (EP) staff regarding the operation, maintenance, and periodic testing of the primary and backup Alert and Notification System (ANS) in the plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and siren test failure records from May 2013 through August 2014. Information gathered during document reviews and interviews were used to determine whether the ANS equipment was maintained and tested in accordance with Emergency Plan Commitments and Procedures. Documents reviewed are listed in the Attachment to this report.

This ANS evaluation inspection constituted one sample as defined in IP 71114.02–06.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

.1 Emergency Response Organization Staffing and Augmentation System

a. Inspection Scope

The inspectors reviewed and discussed with plant EP staff the Emergency Plan Commitments and Procedures for Emergency Response Organization (ERO) on-shift and augmentation staffing levels. A sample of ERO training records for personnel assigned to key and support positions were reviewed to determine the status of their training as it related to their assigned ERO positions. The inspectors reviewed the ERO Augmentation System and activation process, the primary and alternate methods of initiating ERO activation, unannounced off-hour augmentation tests from May 2013 through August 2014, and the provisions for maintaining the plant's ERO roster.

The inspectors reviewed a sample of corrective actions related to the facility's ERO staffing and Augmentation System Program and activities from May 2013 through August 2014 to determine whether corrective actions were completed in accordance with the site's Corrective Action Program. Documents reviewed are listed in the Attachment to this report.

This ERO staffing and augmentation system inspection constituted one sample as defined in IP 71114.03–06.

b. <u>Findings</u>

No findings were identified.

1EP5 <u>Maintenance of Emergency Preparedness</u> (71114.05)

.1 Maintenance of Emergency Preparedness

a. <u>Inspection Scope</u>

The inspectors reviewed a sample of nuclear oversight staff's audits of the EP Program to determine whether these independent assessments met the requirements of 10 CFR 50.54(t). The inspectors also reviewed critique reports and samples of CAP records associated with the 2012 Biennial Exercise, as well as various EP drills conducted, in order to determine that the licensee fulfilled its drill commitments and to evaluate the licensee's efforts to identify, track, and resolve concerns identified during these activities.

The inspectors reviewed a sample of EP items and corrective actions related to the facility's EP Program and activities from May 2013 through August 2014 to determine whether corrective actions were completed in accordance with the site's CAP. Documents reviewed are listed in the Attachment to this report.

This correction of EP weaknesses and deficiencies inspection constituted one sample as defined in IP 71114.05–06.

b. Findings

No findings were identified.

1EP6 <u>Drill Evaluation</u> (71114.06)

.1 Emergency Preparedness Drill Observation

a. <u>Inspection Scope</u>

The inspectors evaluated the conduct of a routine licensee emergency drill on September 18, 2014, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator control room, technical support center and emergency operations facility to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06–05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety and Occupational Radiation Safety

2RS5 Radiation Monitoring Instrumentation (71124.05)

The inspection activities supplement those documented in Inspection Report 05000266/2014003 and 05000301/2014003 and constitute one complete sample as defined in IP 71124.05–05.

.1 Calibration and Testing Program (02.03)

Process and Effluent Monitors

a. Inspection Scope

The inspectors selected effluent monitor instruments (such as gaseous and liquid) and evaluated whether channel calibration and functional tests were performed consistent with radiological effluent Technical Specifications/Offsite Dose Calculation Manual (ODCM). The inspectors assessed whether: (a) the licensee calibrated its monitors with National Institute of Standards and Technology traceable sources; (b) the primary calibrations adequately represented the plant nuclide mix; (c) when secondary

calibration sources were used, the sources were verified by the primary calibration; and (d) the licensee's channel calibrations encompassed the instrument's alarm set-points.

The inspectors assessed whether the effluent monitor alarm setpoints were established as provided in the ODCM and station procedures.

For changes to effluent monitor setpoints, the inspectors evaluated the basis for changes to ensure that an adequate justification existed.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

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

.1 <u>Inspection Planning and Program Reviews</u> (02.01)

Event Report and Effluent Report Reviews

a. Inspection Scope

The inspectors reviewed the radiological effluent release reports issued since the last inspection to determine if the reports were submitted as required by the ODCM/Technical Specifications. The inspectors reviewed anomalous results, unexpected trends, or abnormal releases identified by the licensee for further inspection to determine if they were evaluated, were entered in the CAP and were adequately resolved.

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

b. Findings

No findings were identified.

Offsite Dose Calculation Manual and Final Safety Analysis Report Review

c. <u>Inspection Scope</u>

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

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection against the guidance in NUREG–1301, 1302, and 0133, and Regulatory Guides 1.109, 1.21, and 4.1. When differences were identified, the inspectors reviewed the technical basis or evaluations of the change during the onsite inspection to determine whether they were technically justified and maintain effluent releases as-low-as-reasonably-achievable.

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

d. <u>Findings</u>

No findings were identified.

Groundwater Protection Initiative Program

e. Inspection Scope

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

f. Findings

No findings were identified.

Procedures, Special Reports, and Other Documents

g. <u>Inspection Scope</u>

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

The inspectors reviewed Effluent Program implementing procedures, particularly those associated with effluent sampling, effluent monitor set-point determinations, and dose calculations.

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

h. Findings

No findings were identified.

.2 Walkdowns and Observations (02.02)

a. Inspection Scope

The inspectors walked down selected components of the gaseous and liquid discharge systems to evaluate whether equipment configuration and flow paths align with the

documents reviewed in Section 02.01 above and to assess equipment material condition. Special attention was made to identify potential unmonitored release points (such as open roof vents in boiling water reactor turbine decks, temporary structures butted against turbine, auxiliary or containment buildings), building alterations which could impact airborne, or liquid effluent controls, and ventilation system leakage that communicates directly with the environment.

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

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

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

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

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

b. Findings

No findings were identified.

.3 Sampling and Analyses (02.03)

a. Inspection Scope

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

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

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

The inspectors reviewed the results of the Inter-Laboratory Comparison Program to evaluate the quality of the radioactive effluent sample analyses and assessed whether the Inter-Laboratory Comparison Program includes hard-to-detect isotopes as appropriate.

b. Findings

No findings were identified.

.4 <u>Instrumentation and Equipment</u> (02.04)

Effluent Flow Measuring Instruments

a. Inspection Scope

The inspectors reviewed the methodology the licensee uses to determine the effluent stack and vent flow rates to determine if the flow rates were consistent with radiological effluent Technical Specifications/ODCM or Final Safety Analysis Report values, and that differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

b. Findings

No findings were identified.

Air Cleaning Systems

c. Inspection Scope

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

d. Findings

No findings were identified.

.5 Dose Calculations (02.05)

a. Inspection Scope

The inspectors reviewed all significant changes in reported dose values compared to the previous radiological effluent release report (e.g., a factor of 5, or increases that approach Appendix I criteria) to evaluate the factors which may have resulted in the change.

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

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

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

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

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

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

b. Findings

No findings were identified.

.6 <u>Groundwater Protection Initiative Implementation</u> (02.06)

a. Inspection Scope

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

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

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

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

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

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

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

b. Findings

No findings were identified.

.7 <u>Problem Identification and Resolution</u> (02.07)

a. <u>Inspection Scope</u>

The inspectors assessed whether problems associated with the Effluent Monitoring and Control Program were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index—Emergency Alternating Current Power System

a. <u>Inspection Scope</u>

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI)–Emergency AC Power System performance indicator (PI) for Units 1 and 2, for the period from the fourth quarter 2013 through the second quarter 2014. 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 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, MSPI derivation reports, issue reports, event reports and NRC Integrated Inspection Reports 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 and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI emergency AC power system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index—High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI–High Pressure Injection Systems PI for Units 1 and 2, for the period from the fourth quarter 2013 through the second quarter 2014. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, MSPI derivation reports, issue reports, event reports and NRC Integrated Inspection Reports 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 and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI high pressure injection system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index—Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI–Heat Removal System PI for Units 1 and 2, for the period from the third quarter 2013 through the second quarter 2014. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, MSPI derivation reports, issue reports, event reports and NRC Integrated Inspection Reports 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 and none were identified. 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. <u>Findings</u>

No findings were identified.

.4 <u>Drill/Exercise Performance</u>

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance (DEP) PI for the period from the second quarter 2013 through the second quarter 2014. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's records and processes including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during pre-designated control room simulator training sessions and performance during other drills associated with the PI to validate the accuracy of the submittals. 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 and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one DEP sample as defined in IP 71151–05.

b. Findings

No findings were identified.

.5 Emergency Response Organization Readiness

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO Readiness PI for the period from the second quarter 2013 through the second quarter 2014. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's records and processes including procedural guidance on assessing opportunities for the PI; performance during drills and revisions of the roster of personnel assigned to key ERO positions to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems were identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO readiness sample as defined in IP 71151–05.

b. <u>Findings</u>

No findings were identified.

.6 Alert and Notification System Reliability

a. <u>Inspection Scope</u>

The inspectors sampled licensee submittals for the ANS Reliability PI for the period from the second quarter 2013 through the second quarter 2014. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's records and processes including procedural guidance on assessing opportunities for the PI and results of periodic ANS operability tests to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine whether any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ANS reliability sample as defined in IP 71151–05.

b. Findings

No findings were identified.

4OA2 <u>Identification and Resolution of Problems</u> (71152)

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

.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 <u>Daily Corrective Action Program Reviews</u>

a. <u>Inspection Scope</u>

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

These 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 Selected Issue Follow-Up Inspection: Operations Procedure Changes and Revisions

a. <u>Inspection Scope</u>

During the daily review of items entered in the licensee's CAP, the inspectors noted that there were a high number of corrective action items documenting errors in the licensee's operations procedures. Inspectors were concerned that the potential existed for inadequate Emergency and Abnormal Operating Procedures stemming from the

licensee's use of their procedural formatting database, and potential conformance issues with Westinghouse Owners Group Emergency Response Guidelines.

Inspectors compared simulator fidelity information to the information in the licensee's CAP to assess the operational validity of the procedures and the effectiveness of the licensee's operator training with respect to simulator-to-actual plant differences. Inspectors were also concerned that for operations procedures that would not be used in emergencies or abnormal operating conditions, the licensee's efforts to create standardized fleet procedures, vital plant-specific information was not being carried forward into the new procedures.

During this inspection period, the inspectors reviewed the final revised procedures, discussed the contents of selected procedures with licensing, design engineering, operations, and operations training personnel to determine whether the actions and assumptions in the procedures were adequate.

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

b. Findings

No findings were identified.

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

.1 (Closed) Licensee Event Reports 05000266/2012–05–00; 05000266/2012–05–01:
Potential Operation Prohibited by Technical Specifications

a. <u>Inspection Scope</u>

On October 8, 2012, the licensee declared the unit 1 containment inoperable due to a SW leak that had developed in the unit 1 containment. The SW leak was found to be on the common return piping for the 'B' train reactor cavity cooler and was isolated by shutting the SW outside containment isolation valves. The degraded pipe was repaired and returned to service on October 26, 2012. On December 7, 2012, the licensee determined that this event was a condition which was prohibited by the licensee's technical specifications and reportable under 10 CFR 50.73(a)(2)(i)(B) because the licensee exceeded the time limits specified by TS 3.6.1.

b. <u>Findings</u>

Inspectors previously identified a finding of very low safety significance (i.e., a Green finding) and an associated NCV for the licensee's failure to perform a POD for the degraded SW piping in containment, which was discussed in IR 05000266/2013002, dated May 13, 2013. Additionally the licensee revised its Containment Leakage Rate Testing program and TS Bases to improve the level of detail that would prompt a timely evaluation used in the support an operability determination, and communicated commitments to these revisions in licensee event reports (LERs) 05000266/2012–05–01. No additional performance deficiencies were identified as part of this review. These LERs are closed.

This event follow-up review constituted two samples as defined in IP 71153–05.

4OA5 Other Activities

.1 <u>Follow-Up Inspection for Three Severity Level IV Traditional Enforcement Violations</u> (92723)

a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's analyses, including a review of common causes, and completed and proposed corrective actions to address the occurrence of three Severity Level IV (SL–IV) violations in the area of impeding the regulatory process. The violations occurred in 2013 and were:

- 2013–002–08: "Failure to Submit LER 05000266/2012–003–00 Within 60 Days;"
- 2013–002–11: "Failure to Update the External Flooding Mitigation Features in the FSAR;" and
- 2013–004–02: "Failure to Update the FSAR for Radioactive Waste Storage Changes."

Additionally, the inspector reviewed the analyses and corrective actions for SL–IV violation 2014007–04, "Failure to Perform a Required 10 CFR Part 50.59 Evaluation," that was identified in the first quarter of 2014. The inspector also reviewed the licensee analysis and corrective actions for the licensee-identified cross-cutting theme for Aspect P.2, "Evaluation."

Documents reviewed are listed in the Attachment to this report.

b. <u>Findings</u>

No findings of significance were identified. The licensee's analyses of the events identified how the findings occurred, documented extent of condition and cause, and considered similar related events. The Apparent Cause evaluations and the review for commonality among the individual evaluations were consistent with licensee procedural requirements and were consistent with the observations documented in the individual condition reports and subsequent analyses. Corrective actions were developed consistent with the identified apparent and common causes and prioritized using "scheduled dates for completion." The licensee scheduled a review for effectiveness in 2015 after completion of corrective actions. Approved definitive measures for determining effectiveness during future reviews were not yet developed by the licensee or not available by the completion of the inspector's review.

c. Observations

The causes identified by the licensee for the four SL–IV violations and the identified issues with a cross-cutting aspect of P.2 included:

- A lack of knowledge or understanding of procedural and existing process requirements including the 10 CFR 50.59 process;
- A lack of knowledge of what constituted the station's licensing basis complicated by poor documentation of the licensing basis including the basis as described in the FSAR; and

• A lack of rigor (e.g., questioning attitude, follow through on issues) in the evaluation of issues and adherence to procedural and process requirements.

Several of the causes were applicable to the majority of the identified issues. Corrective actions completed or planned included:

- Review and, as applicable, clarify and strengthen procedures and controls including those that address FSAR contents, 10 CFR 50.59 requirements; operability evaluations; and reportability requirements and tracking.
- Assign ownership of FSAR sections to individuals within the organization and task them with improving and maintaining licensing basis documentation in their assigned sections.
- Provide training to personnel to enhance their understanding of what constitutes the licensing basis with emphasis on items outside of the FSAR.
- Provide training to personnel on the 10 CFR 50.59 process and station procedural requirements.
- Update and provide training on the characteristics of "Engaged, Thinking Organizations" with the intent of increasing "rigor" in the organization.

The corrective actions, with the exception of the corrective action associated with the "Engaged, Thinking Organizations," were completed or in the process of being completed at the conclusion of the inspection. The "Engaged, Thinking Organizations" training was scheduled to be completed in June 2015.

The inspector noted that the SL–IV 2013002–08 violation involved the revision of an operability evaluation three times in response to questions from the NRC resident inspectors and resulted in delays of making a required report to the NRC. The licensee's evaluation concluded that the cause of the violation was the complexity of the situation while appropriately considering event reporting timing. The licensee's extent of condition also identified an issue with a SW leak inside containment where initial determinations, which were questioned by the NRC resident inspectors, were not consistent with the final determination. The licensee's analysis for the cross-cutting P.2 theme listed a contributing cause of less than adequate understanding of the design and licensee basis. The inspector questioned whether there was a need to increase technical knowledge of the plant design; there were no documented actions to increase technical station staff knowledge of the plant design or the details in the licensing basis. After discussion with licensee staff the inspector concluded that the concerns shown in SL-IV 2013002-09 violation could be addressed by better documentation of the licensing bases and increased rigor in following procedures and a questioning attitude. Corrective actions to address both items were in the licensee's analyses with an effectiveness review scheduled for December 2015.

The licensee's apparent causes, as required by licensee's procedures, also included a "Nuclear Safety Culture Evaluation Form" to document whether there were any identified weaknesses associated with cross-cutting aspects. The licensee's analyses and the inspector's review did not identify any significant trends with any of the aspects beyond the P.2, "Evaluation," aspect. The inspector also questioned the licensee whether if the last safety culture survey, conducted in 2013, had identified any areas that might be indicative of the identified rigor and questioning attitude causes identified in the apparent causes for the SL–IV violations. The licensee staff questioned by the inspector were

unaware of the safety culture survey results. The station's Licensing Manager was aware of the survey but indicated that he was not aware of any items from that survey that would indicate issues similar to the causes identified in the apparent cause analyses for the SL–IV violations.

Operation of an Independent Spent Fuel Storage Installation at Operating Plants (60855.1)

a. <u>Inspection Scope</u>

The inspectors conducted document reviews; held discussions with licensee staff; and performed a walk-down of the independent spent fuel storage (ISFSI) to verify compliance with the applicable Certificate of Compliance, TS, Safety Analysis Report, and approved ISFSI procedures. During the walk-down, the material condition of the ISFSI pad and Horizontal Storage Modules was evaluated and the inspector observed the licensee perform routine surveillance activities.

Site procedures were reviewed to verify that adequate controls were in place to monitor the dose resulting from the operation of the ISFSI. The inspectors reviewed several routine surveys performed by the licensee around the pad and conducted independent surveys to verify dose rates.

Condition reports and the associated follow up actions were reviewed to determine whether corrective actions were adequate and conducted in a timely manner to correct the issues. In addition a number of Title 10 of the *Code of Federal Regulations* (CFR) Part 72.48, "Changes, Tests, and Experiments," and 10 CFR 50.59, "Changes, Tests, and Experiments" screenings were reviewed, specifically those associated with the operation of an ISFSI.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 15, 2014, the inspectors presented the inspection results to Mr. E. McCartney, 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:

- On July 18, 2014, the inspection results for the areas of radiation monitoring instrumentation and radioactive gaseous and liquid effluent treatment were discussed with Mr. E. McCartney, Site Vice President.
- On August 21, 2014, the inspector's review of the licensee's actions to address the occurrence of three SL–IV violations in the area of impeding regulatory process were discussed with Mr. M. Millen, Licensing Manager.

- On September 11, 2014, the results of the Emergency Preparedness Program inspection were discussed with Mr. R. Wright.
- On September 23, 2014, the results of the Requalification Program inspection were presented to Mr. R. Amundson.
- On September 29, 2014, the results of the ISFSI operational inspection were presented to Mr. E. McCartney and other members of the licensee's staff.

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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

<u>Licensee</u>

- E. McCartney, Site Vice President
- R. Wright, Plant General Manager
- S. Aerts, Performance Improvement Manager
- R. Amundson, NRC Examination Coordinator
- M. Boeselager, Operations Shift Manager
- L. Christensen, Project Manager
- R. Clark, Engineering Analyst II
- A. Fitzgerald, Emergency Preparedness Specialist
- R. Harrsch, Engineering Site Director
- R. Higgins, Operations Shift Manager
- K. Hilliker, Emergency Preparedness Coordinator
- J. Keltner, Chemistry Manager
- B. Kopetsky, Security Site Manager
- D. Lauterbur, Training Site Manager
- B. Leonhardt, Emergency Preparedness Coordinator
- K. Locke, Licensing
- L. Nicholson, Licensing Fleet Manager
- M. Millen, Licensing Manager
- P. Polfleit, Emergency Preparedness Corporate Functional Area Manager
- B. Scherwinski, Licensing
- T. Schneider, Senior Engineer
- R. Seizert, Emergency Preparedness Manager
- B. Smith, ISFSI Project Manager
- G. Strharsky, Site Quality Manager
- R. Webber, Operations Site Director
- R. Welty, Radiation Protection Manager
- P. Wild, Engineering Site Manager-Design
- J. Wilson, Maintenance Director

Nuclear Regulatory Commission

J. Cameron, Chief, Reactor Projects Branch 4

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

<u>Opened</u>		
05000266/201400401 05000301/201400401	NCV	Failure to Identify Degraded Water Sprinkler System (Section 1R05)
05000266/2014004–02 05000301/2014004–02	NCV	Failure to Perform Required Fire Watch Inspections (Section 1R05)
05000266/2014004–03 05000301/2014004–03	FIN	Deficiencies in Calculation Performed to Support Containment Dome Truss Operability (Section 1R15)
05000266/2014004–04 05000301/2014004–04	FIN	Incomplete Prompt Operability Determination of Non-Seismic Block Wall (Section 1R15)
Closed		
05000266/2014004–01 05000301/2014004–01	NCV	Failure to Identify Degraded Water Sprinkler System (Section 1R05)
05000266/2014004–02 05000301/2014004–02	NCV	Failure to Perform Required Fire Watch Inspections (Section 1R05)
05000266/2014004–03 05000301/2014004–03	FIN	Deficiencies in Calculation Performed to Support Containment Dome Truss Operability (Section 1R15)
05000266/2014004–04 05000301/2014004–04	FIN	Incomplete Prompt Operability Determination of Non-Seismic Block Wall (Section 1R15)
05000266/2012005–00 05000301/2012005–00	LER	Potential Operation Prohibited by Technical Specifications (Section 4OA3.1)
05000266/2012005–01 05000301/2012005–01	LER	Potential Operation Prohibited by Technical Specifications (Section 4OA3.1)

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection (71111.01)

- AOP-13C; Severe Weather Conditions; Revision 35
- AR 01989614; Vulnerability to External Flooding
- AR 01990264; AOP-13C Severe Weather / Contingency Submersible Pumps
- BG AOP-13C; Background Document Severe Weather Conditions; Revision 15
- Clearance Coversheet; 0 TH Truck Access Door Flood Concern 01
- Clearance Tag List; 0 TH Truck Access Door Flood Concern 01
- NP 8.4.17; PBNP Flooding Barrier/Relief Path Program; Revision 16
- OM 3.30; Operations Snow Emergency Staffing; Revision 4
- PC 80 Part 7; Lake Water Level Determination; Revision 13

1R04 Equipment Alignment (71111.04)

- 2-CL-CC-001; Component Cooling Unit 2; Revision 15
- 2-SOP-CC-001; Component Cooling System; Revision 26
- AOP 9B Unit 2; Component Cooling System Malfunction; Revision 23
- AR 01910347; 2P-11A Seal Leakage Increases
- AR 01912124; 2P-11B, CCW Pump Visible Increase in Vibrations
- AR 01951427; Unit 1 CC Surge Tank Level Lowering at Increased Rate
- AR 01951679: Suspect 2CC-728B CC HX Crossconnect Valve May be Leaking By
- AR 01951948; 2CC-726B, CC HX Crossconnect Suspected Leaking By
- AR 01953134; 2CC-738B Stopped Mid Stroke When Opening
- AR 01956299; Missing Support Bolts 2CC-761B
- AR 01968529; 1P-11B Inboard Pump Oiler Bulb Excessive Vibration
- AR 01969646; 1P-11A CCW Pump Vibration Concerns
- AR 01971426; Bad Chromate Leak 2CC-130 Packing and B to B
- AR 01975033; Plant Equipment Found Out of Normal Alignment
- AR 01976879; Relief Valves Cannot be Tested as Scheduled Shop Work
- AR 01988483; Increased Inboard Seal Leakage
- AR 01989368; 6 Gallon Per Day Leak Unit 2 CCW
- AR 01990459; "D" CCW Heat Exchanger Outlet TCV Malfunction
- AR 01991930; Broken Instrument Pressure Gage for Valve 2SW-12D
- AR 01991932, Lock Nut on Gag Device Found Unthreaded
- AR 01991939; Confusing Required Positions on Checklist
- AR 01993213; NRC Question of CCW Surge Tank Transmitter Design
- AR 01993215; NRC Questions Regarding Ops Performance of 2-CL-CC-001
- CL 11A G-04; G-04 Diesel Generator Checklist; Revision 10
- CL 13E Part 1; Auxiliary Feedwater Valve Lineup Turbine-Driven Unit 1; Revision 47
- CL 13E Part 2; Auxiliary Feedwater Valve Lineup Motor Driven; Revision 51
- CL 7A; Safety Injection System Checklist Unit 1; Revision 34
- Drawing 110E017 Sheet 3; Safety Injection System; Revision 48
- Drawing 110E018 Sheet 1; Auxiliary Coolant System; Revision 70

- Drawing 110E029 Sheet 2; Auxiliary Coolant System; Revision 45
- Drawing 110E029 Sheet 3; Auxiliary Coolant System; Revision 17
- Drawing M-209 Sheet 15; Starting Air System Diesel Generator Building; Revision 38
- Drawing M-217 Sheet 1; Auxiliary Feedwater System; Revision 99
- Drawing M-227 Sheet 2; Glycol Cooling System Diesel Generator Building; Revision 10
- Drawing CBDM-209 Sheet 3; Fuel Oil System Diesel Generator Building, Revision 9
- Drawing CBDM-209 Sheet 2; Fuel Oil System Diesel Generator Building, Revision 7
- FSAR Section 10.2; Auxiliary Feedwater System (AF); UFSAR 2013
- FSAR Section 9.1; Component Cooling Water; September 2014
- OP-AA-102-1003; Guarded Equipment; Revision 5
- WO 40214023; 2P-011A/Machine Case Face; January 6, 2014

<u>1R05 Fire Protection</u> (71111.05)

- AR 01975811; Scaffold in South SW Pump Bay
- CE 01975811; Scaffold in South SW Pump Bay
- Drawing 019618; Pump House Roof Plans; Revision 6
- Drawing PBC-218 Sheet 2; Fire Protection for Turbine Building, Aux Building & Containment Elev 8'; Revision 28
- Drawing PBC-218 Sheet 21; Fire Barrier Locations for Turbine Building, Aux Building & Containment Elev 8'; Revision 11
- Drawing PBC-219 Sheet 1; Fire Emergency Procedure 4.1 Aux Building & Containment Elev 8'-0'; Revision 6
- Drawing PBC-219 Sheet 41; Fire Emergency Procedure 4.19 Circulating Water Pumphouse; Revision 3
- FEP 4.1; PAB West and Central El. (-)19'; (-)5'; 8' CCW, CS/SI, AFW; Revision 12
- FEP 4.19; Circulating Water Pumphouse; Revision 9
- FHAR Fire Hazards Analysis Report; Revision 6
- Fire Round Performance Sheet Miscellaneous Areas for September 23, 2014; Four Hour Rounds
- Fire Round Performance Sheet PAB for September 23, 2014; Four Hour Rounds
- Fire Round Performance Sheet PAB for September 23, 2014; One Hour Rounds
- Fire Round Performance Sheet Turbine Hall for September 23, 2014; Four Hour Rounds
- Fire Round Performance Sheet Turbine Hall for September 23, 2014; One Hour Rounds
- MA-AA-100-1002; Scaffold Installation, Modification, and Removal Requests; Revision 1
- MA-AA-100-1002-F01; Scaffold Walkdown Checklist for Operations for WO 40312543 completed on May 20, 2014
- MA-AA-100-1002-F02; Scaffold Final Inspection Checklist for WO 40312543; June 16, 2014
- NFPA 13; Standard for the Installation of Sprinkler Systems; May 17, 1966
- Point Beach Nuclear Plant; Fire Protection Evaluation Report; Revision 14

1R07 Annual Heat Sink Performance (71111.07)

- AR 01941977; Reduction in EDG Radiation Capability due to High Winds
- AR 01990459; "D" CCW Heat Exchanger Outlet TCV Malfunction
- GL 89-13; Program Document; Revision 11
- WO 40299163 (01); HX-055A Open Inspect and Clean as Required
- WO 40315807 (01); HX-511 Immersion Heater Does Not Appear to be Working

<u>1R11 Licensed Operator Requalification Program</u> (71111.11)

- 2014 Annual NRC Operational Exam Debrief Report, Crew B, Teams 1 & 2;
 September 25, 2014
- AR 01986897; Question on Surveillance Performance
- AR 01987478; OP 1B, Reactor Startup, Procedural Enhancement
- AR 01989670; Delay During Critical Step During Startup
- AR 01991506; 2Q14 SRC Action Not Carried Out As Planned
- AR 01991538; Magnets on MCB W/O Considering Impact on Simulator
- AR 01991727; Evaluate Training Need for ENS Forms
- AR 01991943; Exam Bag and Training Cycle Records Keys Found in Plant
- AR 01993687 and 01993654; Tracking CR Licensed Operator Completion of Annual Exam
- BG CSP-S.1; Response to Nuclear Power Generation/ATWS CSP Background Document; Revision 26
- Crew Simulator Evaluation Form; Crew B, Team 1
- Crew Simulator Evaluation Form; Crew B, Team 2
- CSP-S.1 Unit 1; Response to Nuclear Power Generation/ATWS; Revision 36
- Drawing 883D195 Sheet 11; Point Beach Units 1 & 2 Logical Diagram Nuclear Instr. Trip Signals; Revision 7
- Drawing 883D195 Sheet 12; Point Beach Units 1 & 2 Logical Diagram Nuclear Instr. Permissive and Blocks; Revision 10
- LMS ID PBN LOC 000 025E; SEG for NRC Annual Operating Exam; Revision 3
- OP 1B; Reactor Startup; Revision 68
- PBN JPM P000.005a.COT; Align Containment Spray Pump for Containment Sump Recirculation with Suction Supplied by the RHR Pump, Revision 1
- PBN JPM P000-043.AOT; Perform Manual Hand Pump Operation of the Containment Sump B Isolation Valves; Revision 8
- PBN JPM P004.027.COT; Manually Makeup to the VCT, Revision 7
- PBN LOC 000 001E; NRC Annual Operating Exam; Revision 4
- PBN LOC 000 002E; NRC Annual Operating Exam; Revision 4
- PBNP LOCT Segment 14D Schedules; Licensed Operator Continuing Training; August 18, 2014 through September 26, 2014
- TR-AA-220-1002-F01; Master Security Agreement for PBNP LOC Annual Operating Examination from 8/18/2014 to 9/26/2014
- TR-AA-220-1002-F02; Limited Security Agreement for PBNP LOC Annual Operating Examination from 8/18/2014 to 9/26/2014
- TR-AA-220-1004; Licensed Operator Continuing Training Annual Operating and Biennial Written Exams; Revision 1
- TR-AA-230-1004-F04; Training Remediation, Revision 1

1R12 Maintenance Effectiveness (71111.12)

- AR 01927784; MRFF Evaluations Need Attribute Revisions
- AR 01975423; Failures Not Included in Quarterly Reviews for MRule
- AR 01975430; Quarterly Reviews for MRule Missing
- ER-AA-100-2002; Maintenance Rule Program Administration; Revision 2
- Maintenance Rule (a)(1) Action Plan for 345 KV System; June 26, 2013
- NP 7.7.4; Scope and Risk Significant Determination for the Maintenance Rule; Revision 23
- NP 7.7.5; Maintenance Rule Monitoring; Revision 24
- NP 7.7.7; Maintenance Rule Periodic Evaluation; Revision 6
- NPM 2013-0032; Minutes for January 15, 2013 MREP Meeting; January 16, 2013

- NPM 2013-0209; Minutes for June 5, 2013 MREP Meeting; June 5, 2014
- NPM 2013-0209; Minutes for June 5, 2013 MREP Meeting; June 5, 2013
- NPM 2013-0211; Minutes for May 1, 2013 MREP Meeting; May 1, 2013
- NPM 2013-0250; Minutes for June 26, 2013 MREP Meeting; June 26, 2014
- NPM 2013-0264; Minutes for September 10, 2013 MREP Meeting; September 10, 2013
- NPM 2013-0337; Minutes for October 2, 2013 MREP Meeting; October 2, 2013
- NPM 2014-0186; 2013 Maintenance Rule Quarterly and Annual System Reviews;
 June 30, 2014
- NPM 2014-0187; 2013 Periodic Maintenance Rule (a)(3) Evaluation; June 30, 2014

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

- AR 01968152; PRA Risk for 2PC-2273 FWH Bypass Pressure Controller Issues
- AR 01974333; No Qual Risk Assessment for RE-234/235 OOS
- AR 01984085; DNA ICP-13.10, VCT Level Cals, Delayed for Sfty mon Chg
- AR 01985847; Safety Monitor Look-Ahead Question
- AR 01989752; Safety Monitor Look Ahead for IT-09B
- AR 01993969; Unplanned Change in Safety Monitor in Schedule
- Control Room Logs; August 22, 2014
- Control Room Logs; July 25, 2014
- Control Room Logs; July 29, 2014
- Control Room Logs; July 30, 2014
- Daily Risk Safety Monitor Report; Unit 1; August 22, 2014
- Daily Risk Safety Monitor Report; Unit 1; July 24, 2014
- Daily Risk Safety Monitor Report; Unit 1; July 25, 2014
- Daily Risk Safety Monitor Report; Unit 1; July 29, 2014
- Daily Risk Safety Monitor Report; Unit 1; July 30, 2014
- Daily Risk Safety Monitor Report; Unit 1; September 29, 2014
- Daily Risk Safety Monitor Report; Unit 2; August 22, 2014
- Daily Risk Safety Monitor Report; Unit 2; July 24, 2014
- Daily Risk Safety Monitor Report; Unit 2; July 25, 2014
- Daily Risk Safety Monitor Report; Unit 2; July 29, 2014
- Daily Risk Safety Monitor Report; Unit 2; July 30, 2014
- Daily Risk Safety Monitor Report; Unit 2; September 29, 2014
- NP 10.3.5; Risk Monitoring and Risk Management; Revision 2
- NP 10.3.7; On-Line Safety Assessment; Revision 33
- OP-AA-102-1003; Guarded Equipment; Revision 5
- Point Beach Nuclear Plant Daily Morning Production Meeting; July 25, 2014
- Point Beach Nuclear Plant Daily Morning Production Meeting; July 30, 2014
- Point Beach Station Unit 1 Daily Status Report; September 29, 2014
- Point Beach Station Unit 2 Daily Status Report; September 29, 2014

1R15 Operability Determinations and Functional Assessments (71111.15)

- 0-PT-FP-014; Z-935, Portable Diesel-Driven Fire Water Pump Quarterly Functional Test;
 Revision 8
- AR 01230528; Potential for G-03/4 Radiator Fans to Trip Breaker When Free
- AR 01913077; Z-935 Portable Diesel Driven Fire Pump Degraded Capacity
- AR 01929073; G-03/G-04 Radiator Question
- AR 01941977; Reduction in EDG Radiator Capability due to High Winds
- AR 01941977; Reduction in EDG Radiator Capability due to High Winds

- AR 01977210; Internal Flood Protection of VSGR and CSR Questioned
- AR 01978746; Reconciliation of Some PAB Masonry Walls
- AR 01978784; IOD Comp Measures not Tracked by an AR
- AR 01979776; External Review of Documentation Gaps for Operability Issues
- AR 01980588; Basis for Operability of G-03/G-04 Questioned
- AR 01986553; Unit 2 Dome Truss to Cont Liner Gap As-Found Measurements
- AR 01677914; 2011 CDBI Inadequate Documentation of Containment Dome Tru
- AR 01750123; Unit 1 & Unit 2 Cont. Dome Truss Analysis Preliminary Results
- AR 01773359; Install Unit 1 Cont. Dome Truss Modifications
- AR 01773363; Install Unit 2 Cont. Dome Truss Modifications
- AR 01887365, Assignment No. 05; Prompt Operability Determination (POD), Escalation for Resolving Containment Dome Truss Issue
- AR 01892251; FSAR Revision for Containment Dome Truss
- AR 01900570; Verification of Classification and Dedication of Containment
- AR 01900727; Error in Calculation 11Q0060-C-001, Rev 0
- AR 01954652; As Found Conditions With the Unit 2 Containment Dome Truss
- AR 01955834; Unit 1 Containment Dome Truss Extent of Condition
- AR 01962836; Assignment No. 01; Prompt Operability Determination (POD), Unit 1 Dome Truss and Containment Gap is Less Than Expected (Unit 1 Specific
- AR 01962836; Assignment No. 04; Prompt Operability Determination (POD), Unit 1 Dome Truss and Containment Gap is Less Than Expected (Unit 2 Extent of Condition
- AR 01962836; Unit 1 Dome Truss and Containment Gap is Less Than Expected
- BG EOP-1; Loss of Reactor or Secondary Coolant EOP Background Document; Revision 36
- Calc 0292-0046-01; Containment Dome Truss Evaluation; Revision 1
- Calc 0292-0046-02; Containment Dome Truss Evaluation; Revision 0
- Calc 11Q0060-C-004; Development of Artificial Ground Acceleration Time History; Revision 0
- Calc 11Q0060-C-005; SSI Analysis of Containment Building for Response Spectra at Supports for Dome Truss: Revision 0
- Calc 11Q0060-C-006; Operability Evaluation of the Dome Truss Critical Components for Response Spectra Based on SSI Analysis; Revision 0
- Calc 11Q0060-C-008; Containment Liner Bearing Capacity; Revision 0
- Calc 11Q0060-LSC-015; Operability Evaluation of Unit 1 Containment Dome Truss Based on Current Field Conditions; 5/15/2014
- Calculation 2005-0040; Emergency Diesel Generators G-03/G-04 Cooling System; Revision 0
- Calculation 2007-15920; Hydraulic Analysis of Flow Path to the Steam Generators and Containment Spray During a B.5.b Scenario; Revision 0
- Calculation 99-0013; Unit 1 & 2 Containment Spray Eductor Performance Evaluation; Revision 3
- Calculation M-11165-090-FP.1; Hydraulic Analysis of Flow Path to the Spent Fuel Pool During a B.5.b Scenario; Revision 0
- AR 01887365; Prompt Operability Determination (POD), Escalation for Resolving Containment Dome Truss Issue
- DBD-16; Design Basis Document for Emergency Diesel Generator System; Revision 18
- DBD-T-41 Module A; Design Basis Document Hazards Internal and External Flooding; Revision 9
- DG-C03; Seismic design Criteria Guideline; Revision 0
- DG-M09; Design requirements for Piping Stress analysis; Revision 3
- DG-M10; Pipe support guidelines; Revision 3
- Drawing 110E035; Safety Injection System, Sh. 3; Revision 47
- Drawing C-125; Containment Structure Liner Support Truss; Revision 9

- EN-AA-203-1001; Operability Determinations/Functionality Assessments; Revision 17
- EOP-1 Unit 1; Loss of Reactor or Secondary Coolant; Revision 42
- EOP-1.3 Unit 2; Transfer to Containment Sump Recirculation Low Head Injection; Revision 50
- FA 01979022; B5B Pump Does Not Pass 0-PT-FP-14 (Repeat Issue); Revision 0
- FSAR Appendix D.6; Engine Cooling System; UFSAR 2013
- Letter from U.S. Atomic Energy Commission to Wisconsin Electric Power Company Containing Internal flood Protection Guidelines; December 10, 1974
- Letter from U.S. Atomic Energy Commission to Wisconsin Electric Power Company; Subject: Flooding Resulting From Failures of Non-Category I Equipment; September 26, 1972
- Letter from U.S. NRC to Wisconsin Electric Power Company; Subject: Seismic Qualification of the Auxiliary Feedwater System at Point Beach Nuclear Plant, Units 1 and 2; September 16, 1986
- Letter from U.S. NRC to Wisconsin Electric Power Company; Subject: Generic Letter 81-14 Request for Additional Information; January 1982
- Letter from U.S. NRC to Wisconsin Electric Power Company; Subject: Generic Letter 81-14; January 16, 1985
- Letter from U.S. NRC to Wisconsin Electric Power Company; Subject: Request for Additional Information; September 29, 1975
- Letter from Wisconsin Electric Power Company to U.S. NRC; Flooding Resulting From Failures of Non-Category I Equipment; April 28, 1975
- Letter from Wisconsin Electric Power Company to U.S. NRC; Flooding Resulting From Failures of Non-Category I Equipment; October 24, 1975
- Letter from Wisconsin Electric Power Company to U.S. NRC; Flooding Resulting From Non-Category I Failure; February 17, 1975
- Letter from Wisconsin Electric Power Company to U.S. NRC; Subject: Generic Letter 81-14; July 16, 1981
- Letter from Wisconsin Electric Power Company to U.S. NRC; Subject: Generic Letter 81-14 Seismic Qualification of Auxiliary Feedwater Systems; April 26, 1985
- Letter from Wisconsin Electric Power Company to U.S. NRC; Subject: Generic Letter 81-14; July 16, 1981
- Meeting Notes Generic Letter 81-14 Seismic Qualification of Auxiliary Feedwater Systems;
 December 19, 1985
- OPR000066; Potential for G-03/4 Radiator Fans to Trip Breaker when Freewheeling Backwards: Revision 1
- PCR 01701179; 0-PT-FP-014 (Issue)
- POD 01874489; Vacuum Relief Valve Failed As-Found Test IST Program; July 22, 2014
- POD 01941977; Reduced EDG Radiator Capability; Revision 0
- POD 01941977; Reduced EDG Radiator Capability; Revision 1
- POD 01987349; D-106 Cell 28-29 Inter-Tier Connection Cables; September 4, 2014
- POR 01976754; U2 Spray Add Tank Level Exceeds POD 01874489 Max Allowable;
 July 22, 2014
- Radiator Cooling Performance Analysis for EMD Emergency Diesel Generator G03 & G04; Revision 1
- RCE 01954549; Cross-Cutting Theme for Aspect P.2, Evaluation
- SCR 2014-0138; Internal Flood Protection of VSGR and CSR Questioned
- Stevenson & Associates Letter 11Q0060-LSC-021; Preliminary Operability Evaluation of Unit 2 Containment Dome Truss Based on Current Field Conditions; August 24, 2014
- WO 40290029 (01); Z-935 / Portable Diesel Driven Fire Pump Degraded Capacity
- WO 40296490; D-106 / Cell 28-29 Inter-Tier Cable Connection Resistance; August 28, 2014

- WO 40316658; 2 Cont/Field Walkdown to Obtain U2 Dome Truss to Liner Gap; August 24 2014
- WO 40300697 (05); PAB / Seal 9 Penetrations Pipeway 3 on M-7-8-25
- WO 40300698 (06); PAB / Seal 13 Penetrations Pipeway 2

<u>1R19 Post-Maintenance Testing</u> (71111.19)

- ACE 01609804; Unexpected Control Room Alarms 1.1% Downpower Required
- ACE 01722313; 1DY-04 (Yellow) Inverter Tripped Off (TSAC 3.7.8.A)
- AR 01954460; (P) RMP 9359-5A—Quarantine
- AR 01962488; Incomplete PMT on Unit 2 Ort 27
- AR 01967398; Immersion Heater Does Not Appear to be Working
- AR 01985627; DA-6318B-S Wire # "SIN" Damaged Wire
- AR 01985983; Inadequate PMT Identified During Execution
- Certificate of Calibration for CEAC-018; April 29, 2014
- Certificate of Calibration for CEAC-019; June 30, 2014
- Certificate of Calibration for CEML-012; April 29, 2014
- Certificate of Calibration for ICTI-858; May 22, 2014
- Certificate of Calibration for MCBT-012; February 20, 2014
- Certification of Calibration for CEFM-008; April 16, 2013
- Certification of Calibration for MCPQ-001A; March 16, 2014
- Certification of Calibration for MCPQ-002A; January 29, 2013
- DBD-12; Services Water System (SW); Revision 22
- DBD-17; Vital 120 Vac System; Revision 7
- Drawing E-7 Sheet 2; 120V Instrument AC System; Revision 9
- FP-E-RTC-02; Equipment Classification Q List; Revision 7
- FSAR Section 8.6; 120 Vac Vital Instrument Power (Y); UFSAR 2013
- FSAR Section 8.7; 125 VDC Electrical Distribution System (125V); UFSAR 2010
- FSAR Section 8.8; Diesel Generator (DG) System; UFSAR 2012
- Instruction Manual Single Phase Regulating Transformer by Power Conversion Products, Inc.
- IT 03 Train A; Low Head Safety Injection Pumps and Valves Train A Unit 1; Revision 2
- IT 07D; P-32D Service Water Pump (Quarterly) for WO 40160842 (03); August 7, 2014
- PCR 01316237: IT 03 Rev 52
- PCR 01837142; IT 03 Train A Low Head Safety Injection Pumps and Valves T
- PCR 01869831; TS 83 PAPR (CA 6/28/13 Due Date)
- PCR 01945916; IT 07D P-32D Service Water Pump--Running 3/20
- PCR 01962286; RMP 9043-17A Emergency Diesel Generator G-01
- Report of Calibration for MCMM-052; July 2, 2014
- Report of Calibration for MCMM-059; May 14, 2014
- RMP 9043-17A; Emergency Diesel Generator G-01 Post-Maintenance Run and Testing; Revision 5; Completed on August 26, 2014
- RMP 9359-5A; D-05 Station Battery, D-07 Battery Charger Maintenance and Surveillances completed on July 27, 2014; Revision 11
- SCR 2007-0065; Proposed Changes to IT 03 and IT03A Following Rebaselining of the 1P-10A RHR Pump; Revision 0
- SCR 2012-0024; Changes to IT 07D Following Analysis of P-32D Service Water Pump Performance
- Spare Parts Equivalency Evaluation Document for 93-072; Capacitor 30 MFD, 660 Vac; September 10, 1993
- Specification No. PB-131; Specification for 120 V / 120 V 1 [Phase] Isolation Transformer; June 18, 1982

- TS 81; Emergency Diesel Generator G-03 Monthly completed on August 23, 2014
- TS 83; Emergency Diesel Generator G-03 Monthly completed on July 30, 2014; Revision 31
- WO 00397939 (02); HX-033A OPS PMT/RTS (Post Maint SOP Run)
- WO 40073937 (01); 1XY-113 / Replace Capacitors at First Available Opportunity
- WO 40205529 (03); G-01 Post Maintenance Testing Per RMP 9043-17A (W/ OPS Support)
- WO 40277516; G-03 / Kiene Test Cock Valve Leaking Combustion Gases
- WO 40281262 (01); G-01, 4 Year Electrical Maint Items
- WO 40298587 (01); 1P-010A Sample and Change Oil as Required
- WO 40301276 (01); D-05/Connect 60th Cell into Battery D-05
- WO 40326845 (01): 1XY-113 / Troubleshoot and Repair per RMP 9201
- WO 40326845 (06); 1XY-113 Detailed Inspection & Testing
- WO 40330807 (01); 2TE-451A/C Dual Element RTD Replacement; Revisions 0 and 1
- WO 40330807 (05); Bench Test and Inspect Spare RTD (CATID 9500222); August 20, 2014
- WO 40330807 (14); 2TM-451C-3 Calibration Input Module; Revision 0

1R20 Outage Activities (71111.20)

- 2F3401 Forced Outage Schedule RTD; August 24, 2014
- ACE 01986897; Question on Surveillance Performance; September 24, 2014
- AR 01986136; Unit 2 Sump 'A' Draining Frequency
- AR 01986142; Unit 2 Containment Increased Tritium Trend
- AR 01986146; Preliminary Results From AMS Test on 2TE-451A/C
- AR 01986509; TS 3.3.3 SR 2 RC Loop Wide Range RTD Calibration
- AR 01986897; Question on Surveillance Performance
- AR 01986993; Unit 2 Dome Truss to Cont Liner Gap As-Found Measurements
- Drawing 13754.23-SK-1077-5, Sheets 1 through 3, 2TE451A/2TE451C Electrical Installation, Revision 4
- Drawing 180400; Connection Diagram Rack 2C170 CD2-28; Revision 2
- Drawing 181597; Connection Diagram Rack 2C173B-F; Revision 8
- POD 01962836-04; Unit 1 Dome Truss and Containment Gap is Less Than Expected (Unit 2 Extent of Condition); May 23, 2014
- POD 01986993-01; Unit 2 Dome Truss to Cont Liner Gap As-Found Measurements;
 September 11, 2014
- Stevenson & Associates Letter 11Q0060-LSC-021; Preliminary Operability Evaluation of Unit 2 Containment Dome Truss Based on Current Field Conditions; August 24, 2014
- WO 40316658; 2 Cont/Field Walkdown to Obtain U2 Dome Truss to Liner Gap;
 August 24, 2014

1R22 Surveillance Testing (71111.22)

- 1EP2 Alert and Notification System Evaluation (71114.02)
- 2ICP 06.015; Auxiliary Coolant System (Non-Outage); Revision 2
- AR 01951348; (P) RMP 9359-6B D-106 Station (WW May 25-31
- AR 01967156; 0P-032D Shaft Vibration Levels Trending Up
- AR 01977277; TS-87 (18 Mo) Initial Condition, Prereg, & IV Confusion
- AR 01992916; Control Room Return Air Damper vNCR-4849F Slow to Reposition
- Calculation 97-0231; Auxiliary Feedwater Pump Low Suction Pressure Trip Instrument Loop Uncertainty/Setpoint Calculation; Revision 2
- CE 01977277; TS-87 (18 Mo) Initial Condition, Prereq, & IV Confusion
- Drawing 499B466 Sheet 744; Elementary Wiring Diagram Turbine Driven Auxiliary Feedwater Trip/Throttle Valve 2MS-02082; Revision 7

- Drawing 499B466 Sheet 863; Elementary Wiring Diagram 2P-29 Auxiliary Feed Pump Suction from Serv Water Supply 2AF-4006; Revision 14
- Drawing CD2-15-1; Connection Diagram Rack 2C173B-F/2C-197; Revision 2
- FEMA ANS Design Basis Report; December 2, 2013
- FEMA ANS Letter for Backup ANS; December 9, 2012
- FSAR Section 7.4.3; AFW Pump Suction Transfer and Trip on Low Suction Pressure; UFSAR 2013
- FSAR Section 9.1; Component Cooling Water (CC); UFSAR 2013
- FSAR Section 9.2; Residual Heat Removal (RHR); UFSAR 2012
- Inservice Testing Program Document; PBNP Inservice Testing Program 5th Interval; Revision 6
- IT 03 Train A; Low Head Safety Injection Pumps and Valves Train A Unit 1; Revision 2
- IT 13 Train B; 2P-11B, Component Cooling Water Pump and Valves Unit 2; Revision 4
- PNBP Evacuation Time Estimate Initial; December 12, 2012
- PNBP Evacuation Time Estimate Update; December 13, 2013
- RMP 9359-6B; D-106 Station Battery, D-108 Battery Charger Maintenance and Surveillances; Revision 6
- SCR 2006-0239; Revise Changes to IT 13 (and 13A) After Rebaseling of 2P-11B Component Cooling Water Pump; Revision 0
- SCR 2010-0100; IT 03 Rebaseline of 1RH-626 Following Maintenance During U1R32; April 12, 2010
- SCR 2011-0082; 1/2SI-852A/b Acceptance Criteria for Stroke Time to Intermediate Position; May 16, 2011
- SCR 2013-0217; Revise IT 13 Train B (and 13A) After Maintenance on 2P-11B Component Cooling Water; Revision 3
- Screening No: PBNP SCR 2007-0065; Proposed Changes to IT 03 and IT 03A Following Rebaselining of the 1P-10A RHR Pump; Revision 0
- Siren Testing and Maintenance Data; May 2013 through August 2014
- STPT 14.11; Setpoint Document Auxiliary Feedwater; Revision 27
- WO 40270262 (01); D-106 Modified Performance Test Data Sheets
- WO 40270262; D-106, Battery M2PT Discharge Test; May 31, 2014
- WO 40279427 (01); 2ICP-02.032-2P-29 Suction Header Pressure Trip Cot

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

- Current ERO Team Roster; September 4, 2014
- Emergency Preparedness Training Program; Revision 16
- Emergency Response Organization (ERO) Augmentation Call-In Drill Results; EOF Staffing Detail; May 2013 through August 2014
- PBNP On-Shift Staffing Analysis; Revision 2
- Selected Station Emergency Response Personnel Training Records

1EP5 Maintenance of Emergency Preparedness (71114.05)

- AR 01878574; EP Drill DEP Failure
- AR 01885454; Unsatisfactory ERO Augmentation Drill due to Delayed Notifications
- AR 01888078; Radiation Monitoring System Health Issues with Obsolescence
- AR 01895641; EPIP 1.3 Missing Calculation
- AR 01895646; EITER Priority and Tracking Failures
- AR 01895652; EP Corrective Action Not Sustainable
- AR 01904359; EP LOR Drill DEP Failure

- AR 01907015; Unsatisfactory ERO Augmentation Drill
- AR 01911809; Unusual Event Flooding Circulating Water Pump House
- AR 01964350; EP Drill DEP Failure
- AR 01970493; Unsatisfactory ERO Augmentation Drill
- AR 01983729; EP to Offsite Organization Communication Issue
- Current Letters of Agreement with Offsite Organizations
- Emergency Preparedness Drill and Exercise Reports; May 2013 through August 2014
- PBN-13-008; Emergency Preparedness Program Audit; August 12, 2013
- PBN-14-004; Emergency Preparedness Program Audit; August 12, 2014
- PBNP Emergency Plan; Index; Revision 76
- PBSA-EP-14-02; Focused Self-Assessment Report; August 21, 2014
- PI-AA-100-1008; Condition Evaluation; Revision 5
- PI-AA-204; Condition Identification and Screen Process; Revision 24

1EP6 Drill Evaluation (71114.06)

- EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 15
- EPIP 1.2; Emergency Classification; Revision 52
- EPIP 2.1; Notifications ERO, State and Counties, and NRC; Revision 49
- EPIP 4.3; Emergency Operations Facility (EOF) Activation and Evacuation; Revision 40
- NARS Form for Drill; September 18, 2014 10:22 a.m.
- NARS Form for Drill; September 18, 2014 11:27 a.m.
- NARS Form for Drill; September 18, 2014 8:44 a.m.
- Point Beach Emergency Preparedness Drill Scenario; September 18, 2014

2RS5 Radiation Monitoring Instrumentation (71124.05)

- 2ICP 13.001; Radiation Monitoring System Electronic Calibrations; various dates
- HPCAL 3.1.7; RE-218 Monitor Calibration; January 17, 2013
- HPCAL 3.1.8; 1(2) RE-219 Monitor Calibration; October 10, 2013
- HPCAL 3.8; Stack Exhaust Monitor Calibration; June 12, 2013

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

- AR 01935125; Auxiliary Building Vent System Isokinetic Not Calibrated
- AR 01963113; Increased Activity in Release Path Monitor
- AR 01965602; RE-218 Outside RMS Monthly Testing Acceptance Criteria
- CAMP 031; Preparation of Batch Liquid and Gaseous Effluent Permit Using RETSCODE Software; Revision 13
- Gaseous Waste Discharge Permit; various dates
- Liquid Waste Discharge Permit; various dates
- NP 3.4.7; Ground Water Protection Program (GWPP); Revision 9
- NP 3.4.9; Ground Water Protection Plan Technical Bases; Revision 1
- Offsite Dose Calculation Manual; Revision 18
- Radiological Effluent Control Manual; Revision 5
- RAM 5.1; Radioactive Airborne Effluent Releases; Revision 11
- RAM 6.1; Radioactive Continuous Airborne Releases; Revision 7
- RAM 6.2; Miscellaneous Steam Releases; Revision 7

4OA1 Performance Indicator Verification (71151)

- AR 01645462; TC-06637 Out of Spec.
- AR 01663181; Perform Testing to Support Past Operability Evaluation
- AR 01678709; NRC Issues Position on Missile Protection for G-01/2 Exhaust
- EPIP 1.2; Emergency Classification; Revision 52
- EPIP 1.3; Dose Assessment and Protective Action Recommendations; Revision 46
- EPIP 2.1; Notifications; Revision 49
- NRC Performance Indicator Data; Emergency Preparedness Alert and Notification System Reliability; 2nd Quarter 2013 through 2nd Quarter 2014
- NRC Performance Indicator Data; Emergency Preparedness Drill/Exercise Performance; 2nd
 Quarter 2013 through 2nd Quarter 2014
- NRC Performance Indicator Data; Emergency Preparedness ERO Readiness 2nd Quarter 2013 through 2nd Quarter 2014

4OA2 Identification and Resolution of Problems (71152)

- AOP 25 Unit 1; Turbine Trip Without Reactor Trip; Revision 12
- AOP-13C: Severe Weather Conditions: Revision 35
- AR 01973138; AOP 25 Revision May Circumvent Design of the Plant; June 19, 2014
- AR 01978963; VEPROMS Documents Do Not Match NAMS Issued Documents
- AR 01980710; CE Reopened for Additional Documentation
- AR 01981006; SEP-3.0 Incorrectly Align AFW Flow
- AR 01981592; SEP-3.0 REV 27 Step 10 Has Incorrect Values due to VE-PROMS
- AR 01981778; ECA-1.1 Step Unable to be Performed as Written
- AR 01982215; DNA AOP13C Shutdown Step Does Not Have Proper Basis
- AR 01982887; DNA AOP-13C Does Not Have Entry Conditions on Hi Lake Level
- AR 01983325; EOP-3 SGTR for Unit 1 and 2 Contain Errors
- BG CSP-S.1; Response to Nuclear Power Generation/ATWS CSP Background Document;
 Revision 26
- BG ECA-1.1; Loss of Containment Sump Recirculation; Revision 29
- BG EOP-1; Loss of Reactor or Secondary Coolant EOP Background Document; Revision 36
- BG EOP-3; Steam Generator Tube Rupture Background Document; Revision 35
- Calculation 99-0013; Unit 1 & 2 Containment Spray Eductor Performance Evaluation; Revision 3
- CSP-S.1 Unit 1; Response to Nuclear Power Generation/ATWS; Revision 36
- ECA-1.1 Unit 1; Loss of Containment Sump Recirculation; Revision 38
- EOP-1 Unit 1; Loss of Reactor or Secondary Coolant; Revision 42
- EOP-1.3 Unit 2; Transfer to Containment Sump Recirculation Low Head Injection; Revision 50
- EOP-3 Unit 1; Steam Generator Tube Rupture; Revision 45
- OM 4.3.2; EOP/AOP Verification/Validation Process; Revision 22
- OP 1B; Reactor Startup; Revision 68
- SEP-3.0 Unit 1: Loss of All AC Power to a Shutdown Unit: Revision 28
- SEP-3.0 Unit 1; Loss of All AC Power to a Shutdown Unit; Revision 27

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

- AR 01811100; Through Wall Leak on the Common Discharge SW Line
- AR 01814163; Lessons Learned Related to SW Leak to 1HX-30B1-B4
- AR 01816824; Potential Incorrect Reference to LCO in CLRT Program

- AR 01822116; Concerns with U1 SW Leak and CLRT
- AR 01830827; Potential Violation for Failure to Follow Tech Specs
- AR 01851688; Inadequate Prompt Operability Evaluation for Containment
- AR 01851750; Appendix J Reconciliation With PBNP Licensing Basis
- AR 01855344; Revise FSAR 5.2 to Add a Closed System Definition
- AR 01855543; CLRT Testing Program CLRT Testing Program Basis Document
- AR 01874489; Vacuum Relief Valve Failed As-Found Test IST Program
- AR 01876246; Non-Conservative Calculation
- AR 01880406; TSB 3.6.1
- AR 01882082; TSB 3.6.3
- AR 01929649; Common Cause Needed for Ops ACES/RCE in 2013 Adverse Trend
- AR 01976754; U2 Spray Add Tank Level Exceeds POD 01874489 Max Allowable
- CLRT Testing Program; Containment Leakage Rate Testing Program Basis Document;
 Revision 15
- EN# 50262; Retraction of Unit 2 Spray Addition Declared Inoperable due to Tank Indication Greater Than 67%; September 5, 2014
- EN# 50262; Unit 2 Spray Addition Declared Inoperable due to Tank Indication Greater Than 67%; July 8, 2014
- LER 05000266/2012-005-00; Potential Operation Prohibited by Technical Specifications;
 December 7, 2012
- LER 05000266/2012-005-01; Potential Operation Prohibited by Technical Specifications; July 11, 2013

4OA5 Other Activities

- 1RMP 9036-2; 1DY-01 Channel Instrument Bus Static Inverter Maintenance Procedure; Revision 8
- ACE 01851639; LER 266/2012-003, for 2B04, Was Not Submitted Within 60 Days as Required by 10CFR50.73; Revision 1
- ACE 01856318-03; FSAR Not Updated for External Flooding Features As Required by 10 CFR 50.71(e); Revision 1
- ACE 01856318-06; PBNP Failed to Establish Adequate Procedural Requirements for Wave Run-up Features as Described in FSAR; Revision 2
- AR 01795342; Vacuum Drying Post-Cal Unsat
- AR 01838856; Repair Caulked Joints in NUHOMS Pad
- AR 01843125; Weld Stainless Steel Plates to the Bottom of the MTC-24
- AR 01851639; Late Licensee Event Report
- AR 01851639-03; Condition Report Change Request Approval
- AR 01855537; ISFSI Ambient Temperatures Not Tracking Together
- AR 01856318; Condition Report Change Request Approval
- AR 01856318; FSAR Not Updated for External Flooding Features
- AR 01872387; Calculation 03Q383-C-0010 Revision Preliminary Results
- AR 01883573; Track Development of ISFSI Annual Inspection Plan
- AR 01893484; Failure to Maintain the Current Licensing Basis Commitment
- AR 01896156; Flooding White Finding and Notice of Violation
- AR 01902692; Adverse Trend on Maintaining the FSAR
- AR 01933272; DFS NUHOMS DSC Siphon/Vent Clock Weld Not Performed
- AR 01946330; Severity Level IV Violation
- AR 01954549; Cross-Cutting Theme for Aspect P.2 Evaluation
- AR 01963553; ISFSI Protected Area Fence in Need of Repair
- AR 01974849; Perform a Needs Analysis on Flooding CLB for ESP Training

- AR 01976590; WVSC-24-05 Ventilated Storage Cask Required Repairs
- AR 01985545; ISFSI Project is Not Fully Meeting NRC Commitments
- AR 01985547; Untimely and Inadequate Corrective Actions ISFSI
- AR 01993016; Review of ISFSI Surveys Noted Some Missing Data
- EN-AA-203-1001; Operability Determinations/Functionality Assessments; Revision 17
- Excel Spreadsheet; Apparent Causes Tabulation; Undated
- Learning Plan PBN IND LIC 001F; Current licensing Basis Fundamentals; Revision 0
- Learning Plan PBN IND LIC 001LI Current Licensing Basis (for Operations); Revision 0
- Lesson Plan PBN ESP CNT OE; Engineering Review of OE; Revision 0
- LI-AA-101-1003; Updated Final Safety Analysis Report (URSAR) Updating; Revision 0
- Memo; 50.59 Read & Learn August 21, 2013; August 21, 2013
- Memo; EN-AA-203-1001 Rev 10 Implementation Readiness (CCA 1691196, CMP 1845168);
 August 21, 2013
- Memo; External Events Lessons Learned -August 21, 2013; August 21, 2013
- Memo; Learning Opportunity on CR Screening from Later LER; April 18, 2013
- Memo; Re: CA 018516390-03 MRC Carb Tabled on 10/21/13; October 23, 2013
- Mentoring Guide NUC ENG GEN 7005; Prepare or Review a 10CFR Applicability and 10CFR50.59 Screening; Revision 0
- NDE-17; Ventilated Concrete Cask Air Inlet/Outlet and Interior/Exterior Surface Examination;
 Revision 6
- PI-AA-100-1005; Root Cause Analysis; Revision 9
- PI-AA-100-1006; Common Cause Evaluation; Revision 6
- PI-AA-100-1007; Apparent Cause Evaluation; Revision 8
- PI-AA-204; Condition Identification and Screening Process; Revision 24
- PI-AA-205; Condition Evaluation and Corrective Action; Revision 25
- Point Beach 10CFR72.212 Evaluation Report for NUHOMS 32PT System; Revision 14
- Point Beach 10CFR72.212 Evaluation Report for VSC-24 System; Revision 7
- Quick Hit Assessment 1947926-04; Traditional Level IV Violations; July 21, 2014
- Quick Hit Assessment PBSA-LIC-14-05; FSAR Maintenance Self-Assessment; July 26, 2014
- RCE 01954549; Cross-Cutting Theme for Aspect P.2, Evaluation; Revision 0
- RDW 19.11; ISFSI Dailey Surveillance; Revision 3
- RDW 19.12; ISFSI Thermal Surveillance; Revision 6
- Table; Actions from the Individual Apparent Causes; Undated
- Training Presentation PBN ESP 013 005L; 2013 50.59 & 72.48 Refresher Training; Undated
- User Curriculum Status; Eng Track 2013 50.59; May 27, 2014
- VSC Exterior Inspections; June 21, 2013
- VSC Exterior Inspections; June 26, 2014
- VSC Exterior Inspections; June 27, 2014

LIST OF ACRONYMS USED

AC Alternating Current

ADAMS Agencywide Document Access Management System

AISC American Institute of Steel Construction

ANS Alert and Notification System

AR Action Request

ASTM American Society of Testing and Materials

CAP Corrective Action Program
CCW Component Cooling Water

CCDP Conditional Core Damage Probability

CFR Code of Federal Regulations

CMFW Compensatory Measures Fire Watches

DEP Drill/Exercise Performance
DRP Division of Reactor Projects
EDG Emergency Diesel Generator
EP Emergency Preparedness

ERO Emergency Response Organization
FPER Fire Protection Evaluation Report
FSAR Final Safety Analysis Report
IEF Initiating Event Frequency
IMC Inspection Manual Chapter

IP Inspection Procedure IR Inspection Report

ISFSI Independent Spent Fuel Storage Installation

JPM Job Performance Measure ksi kips per square inch LER Licensee Event Report

LERF Large Early Release Frequency

LOCA Loss-of-Coolant-Accident LOOP Loss of Offsite Power

LORT Licensed Operator Requalification Training
MSPI Mitigating Systems Performance Index

NCV Non-Cited Violation NEI Nuclear Energy Institute

NRC Nuclear Regulatory Commission NSP Non-suppression Probability

NVSGR Non-vital Switchgear

ODCM Offsite Dose Calculation Manual

OOS Out-of-Service

PARS Publicly Available Records

PE Periodic Evaluation
PI Performance Indicator
PMT Post-Maintenance Testing

POD Prompt Operability Determination

PWR Pressurized Water Reactor

RASP Risk Assessment Standardization Project

RHR Residual Heat Removal

RTD Resistance Temperature Detector SDP Significance Determination Process SRA

Senior Risk Analyst Structures Systems Component Standardized Plant Analysis Risk SSC SPAR

SW Service Water

TS

Technical Specification
Vital Switchgear
Work Order **VSGR** WO

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Sincerely,

/RA/

Jamnes Cameron, Chief Branch 4 Division of Reactor Projects

Docket Nos. 50–266; 50–301; 72–005 License Nos. DPR–24; DPR–27

Enclosure:

IR 05000266/2014004; 05000301/2014004;

and 07200005/2014001

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