



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

October 20, 2021

Mr. Michael Strobe  
Site Vice President  
NextEra Energy Point Beach, LLC  
6610 Nuclear Road  
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT – INTEGRATED INSPECTION REPORT  
05000266/2021003 AND 05000301/2021003

Dear Mr. Strobe:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Point Beach Nuclear Plant. On October 5, 2021, the NRC inspectors discussed the results of this inspection with Mr. M. Holzmann, Site Operations Director, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation, or the significance or severity of the violation, documented in this inspection report, 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 copies to the Regional Administrator, Region III; the Director, Office of Enforcement; and the NRC Resident Inspector at Point Beach Nuclear Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC Resident Inspector at Point Beach Nuclear Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Feliz-Adorno, Nestor  
on 10/20/21

Néstor J. Feliz Adorno, Chief  
Branch 4  
Division of Reactor Projects

Docket Nos. 05000266 and 05000301  
License Nos. DPR-24 and DPR-27

Enclosure:  
As stated

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Letter to Michael Strope from Néstor Féliz Adorno dated October 20, 2021.

SUBJECT: POINT BEACH NUCLEAR PLANT – INTEGRATED INSPECTION REPORT  
05000266/2021003 AND 05000301/2021003

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000266 and 05000301

License Numbers: DPR-24 and DPR-27

Report Numbers: 05000266/2021003 and 05000301/2021003

Enterprise Identifier: I-2021-003-0099

Licensee: Nextera Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant

Location: Two Rivers, WI

Inspection Dates: July 01, 2021 to September 30, 2021

Inspectors: R. Baker, Senior Operations Engineer  
J. Cassidy, Senior Health Physicist  
T. Hartman, Senior Resident Inspector  
V. Petrella, Resident Inspector  
T. Wingfield, Operations Engineer

Approved By: Néstor J. Félix Adorno, Chief  
Branch 4  
Division of Reactor Projects

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Point Beach Nuclear Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### List of Findings and Violations

Inadequate Description of the Amount of Radioactive Material in Shipping Papers			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Public Radiation Safety	Green NCV 05000266,05000301/2021003-01 Open/Closed	[P.3] - Resolution	71152
A Self-Revealed Green finding and associated Non-cited Violation (NCV) of 10 CFR 71.5(a) for the failure to provide the correct quantity of radioactive material identified on shipping papers, in accordance with NRC and Department of Transportation requirements.			

### Additional Tracking Items

None.

## PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On July 31, 2021, Unit 1 was shut down due to the trip of a main feedwater pump. The unit was restarted on August 1, 2021, and reactor power was raised to approximately 55 percent until the main feedwater pump was repaired. On August 7, 2021, the unit was returned to rated thermal power, and remained at or near full power throughout the remainder of the inspection period.

Unit 2 began the inspection period at rated thermal power. On September 8, 2021, the unit began coastdown for the upcoming refueling outage. The unit was at 86 percent of rated thermal power at the end of the inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection, unless otherwise noted. Currently approved IPs, with their attached revision histories, are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met, consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the Coronavirus Disease 2019 (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on site as local COVID-19 conditions permitted. As part of their onsite activities, resident inspectors conducted plant status activities, as described in IMC 2515, Appendix D, observed risk significant activities, and completed on site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all, or a portion, of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

## REACTOR SAFETY

### 71111.04 - Equipment Alignment

#### Partial Walkdown Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Unit 1 motor-driven auxiliary feedwater pump on August 1, 2021
- (2) Unit 2 train A emergency diesel generator (G-02) on August 17, 2021
- (3) Unit 1 train B containment spray on August 26, 2021

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the Unit 2 safety injection system on July 22, 2021.

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) fire zones 152, 153, 154, and 155 on August 11, 2021
- (2) fire zones 306 and 307 on September 29, 2021
- (3) fire zone 308 on September 30, 2021
- (4) fire zone 309 on September 30, 2021

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) circulating water pump and service water pump building

Cable Degradation (IP Section 03.02) (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) manholes #1 and #2 (Z-65A/B)

71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

Requalification Examination Results (IP Section 03.03) (1 Sample)

- (1) The inspectors reviewed and evaluated the licensed operator examination failure rates for the requalification annual operating exam administered from August 16, 2021 through September 24, 2021.

71111.11B - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Requalification Program (IP Section 03.04) (1 Sample)

(1) Biennial Requalification Written Examinations

The inspectors evaluated the quality of the licensed operator biennial requalification written examination administered on February 17, 2021.

Annual Requalification Operating Tests

The inspectors evaluated the adequacy of the facility licensee's annual requalification operating test.

Administration of an Annual Requalification Operating Test

The inspectors evaluated the effectiveness of the facility licensee in administering requalification operating tests required by 10 CFR 55.59(a)(2), and that the facility licensee is effectively evaluating their licensed operators for mastery of training objectives.

Requalification Examination Security

The inspectors evaluated the ability of the facility licensee to safeguard examination material, such that the examination is not compromised.

Remedial Training and Re-Examinations

The inspectors evaluated the effectiveness of remedial training conducted by the licensee, and reviewed the adequacy of re-examinations for licensed operators who did not pass a required requalification examination.

Operator License Conditions

The inspectors evaluated the licensee's program for ensuring that licensed operators meet the conditions of their licenses.

Control Room Simulator

The inspectors evaluated the adequacy of the facility licensee's control room simulator in modeling the actual plant, and for meeting the requirements contained in 10 CFR 55.46.

Problem Identification and Resolution

The inspectors evaluated the licensee's ability to identify and resolve problems associated with licensed operator performance.



71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01)  
(1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the Control Room during Unit 1 reactor startup on August 1, 2021.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated annual operator requalification in the simulator on August 24, 2021.

71111.12 - Maintenance Effectiveness

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) The inspectors reviewed six work packages covering a variety of maintenance activities to evaluate whether licensee quality control verifications are properly specified, in accordance with the Quality Assurance Program, and are implemented, as specified.

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) emergent work due to Unit 1 plant trip on August 1, 2021
- (2) elevated plant risk due to G-01 emergency diesel generator and G-05 gas turbine out of service with severe weather forecasted on August 10, 2021
- (3) elevated plant risk due to the Unit 1 turbine trip testing on July 21, 2021
- (4) elevated plant risk due to DY-0A, Red 125V DC / 120V AC Alternate Inverter, maintenance on July 20, 2021
- (5) elevated plant risk due to the D-305/D-09 swing station battery and charger maintenance and testing on August 31, 2021

### 71111.15 - Operability Determinations and Functionality Assessments

#### Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) G-02 emergency diesel generator elevated vibrations
- (2) Unit 1 B steam generator feedwater regulator controller failed to operate in auto
- (3) G-02 emergency diesel generator fuel oil transfer pump did not stop as expected

### 71111.19 - Post-Maintenance Testing

#### Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the following post-maintenance test activities to verify system operability and functionality:

- (1) RMP 9036-1, DY-0A Red Channel Instrument Bus Static Inverter Maintenance Procedure, on July 20, 2021
- (2) testing of Unit 1 B main feed water pump after the trip on timed overcurrent on August 7, 2021
- (3) testing of the G-01 emergency diesel generator after maintenance on August 19, 2021
- (4) testing of G-03 lube oil recirculation pump after replacement on August 31, 2021
- (5) testing of Unit 2 B residual heat removal pump after maintenance on September 9, 2021

### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

#### Surveillance Tests (other) (IP Section 03.01) (2 Samples)

- (1) 1ICP 02.003A, Reactor Protection System Logic Train A 31 Day Surveillance, on July 15, 2021
- (2) TS 83, Emergency Diesel Generator G-03 Monthly, on July 25, 2021

## **RADIATION SAFETY**

### 71124.08 - Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation

#### Radioactive Material Storage (IP Section 03.01) (1 Sample)

- (1) Inspectors evaluated the licensee's performance in controlling, labeling, and securing radioactive materials.

Radioactive Waste System Walkdown (IP Section 03.02) (1 Sample)

- (1) Inspectors walked down accessible portions of the solid radioactive waste systems and evaluated system configuration and functionality.

**OTHER ACTIVITIES – BASELINE**

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

- (1) Unit 1 July 1, 2020 - June 30, 2021
- (2) Unit 2 July 1, 2020 - June 30, 2021

MS07: High Pressure Injection Systems (IP Section 02.06) (2 Samples)

- (1) Unit 1 July 1, 2020 - June 30, 2021
- (2) Unit 2 July 1, 2020 - June 30, 2021

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

- (1) Unit 1 July 1, 2020 - June 30, 2021
- (2) Unit 2 July 1, 2020 - June 30, 2021

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (2 Samples)

- (1) Unit 1 October 1, 2020 - June 30, 2021
- (2) Unit 2 October 1, 2020 - June 30, 2021

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

- (1) October 1, 2020 - June 30, 2021

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual  
Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample  
(IP Section 02.16) (1 Sample)

- (1) October 1, 2020 - June 30, 2021

71152 - Problem Identification and Resolution

Semiannual Trend Review (IP Section 02.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program from December 2020 to May 2021 for potential adverse trends that might be indicative of a more significant safety issue.

Annual Follow-Up of Selected Issues (IP Section 02.03) (2 Samples)

The inspectors reviewed the licensee’s implementation of its corrective action program related to the following issues:

- (1) gap identified on Unit 1 electrical equipment room fire barrier
- (2) transportation of radioactive materials

71153 – Follow-Up of Events and Notices of Enforcement Discretion

Event Follow-Up (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated a plant trip as a result of a loss of main feedwater pump and the licensee’s response on July 31, 2021.

**INSPECTION RESULTS**

Inadequate Description of the Amount of Radioactive Material in Shipping Papers			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Public Radiation Safety	Green NCV 05000266,05000301/2021003-01 Open/Closed	[P.3] - Resolution	71152
<p>A self-revealed Green finding and associated Non-cited Violation (NCV) of 10 CFR 71.5(a) for the failure to provide the correct quantity of radioactive material identified on shipping papers, in accordance with NRC and Department of Transportation requirements.</p> <p><u>Description:</u></p> <p>On December 8, 2020, Radiation Protection personnel performed radiological surveys of spent resin liner number 678141-2 using Work Plan 160A “Resin Liner Survey and Liner to Shipping Cask,” Revision 3, dated December 5, 2020. The results from this survey were used to calculate the quantity of radioactivity contained in the liner. The licensee transferred the calculated quantity of radioactivity in the liner to the NRC Form 540 “Uniform Low-Level Radioactive Waste Manifest,” which becomes a key attribute of the shipping papers when the liner was shipped to a vendor for waste processing on January 14, 2021. The inspectors observed that Radiation Protection Work Plan 160A “Resin Liner Survey and Liner to Shipping Cask,” Revision 3, dated December 5, 2020, had been developed in response to lessons learned from radioactive waste shipment 19-037 and to include corrective actions from CR 02360869, “Preliminary White Finding Related to Radwaste Shipment.”</p> <p>On January 15, 2021, the vendor received the shipment and moved the liner to a shielded location for short term storage before processing. In April 2021, the waste processing vendor removed the liner from storage, performed a radiological survey, and identified significantly higher dose rates on the liner (and consequently higher activity of radioactive material within the liner) than had been reported by the licensee.</p> <p>After an evaluation to reconcile the differences, the licensee determined that its staff had under-reported the activity in the liner. On April 21, 2021, the licensee revised the shipping papers, including the total package activity, and transmitted updated documents to the waste processor. In this case, the licensee determined the liner contained a revised total</p>			

package activity of 1.07E+07 MBq (or 2.90E+05 mCi). This was 2.5 times the radioactive material reported at the time of the shipment (4.21E+06 MBq (or 1.14E+05 mCi)).

The licensee determined the direct cause of this error was RP Workplan 160A, "Resin Liner Survey and Liner to Shipping Cask," did not require an adequate amount of survey points.

Corrective Actions: The corrected shipping papers, with the increased total package activity, were sent to waste processor. Additionally, the licensee revised RP workplan 160A, "Resin Liner Survey and Liner to Shipping Cask," to require additional survey points.

Corrective Action References: AR 02389967

Performance Assessment:

Performance Deficiency: The licensee did not adequately describe hazardous material in shipping papers as required by regulatory requirements.

On January 14, 2021, the licensee shipped radioactive waste (Shipment 21-001) to a radioactive waste processing facility. The shipment documentation listed a radioactive content of 4.21E+06 MBq. After arriving at the facility, the waste processor identified that the radioactive content was incorrect. Subsequently, the licensee performed an evaluation and revised the shipment documentation to state a radioactive content of 1.07E+07 MBq, which was 254 percent of the radioactive material that was reported at the time of the shipment.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Program & Process attribute of the Public Radiation Safety cornerstone, and adversely affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain, as a result of routine civilian nuclear reactor operation. Specifically, the licensee provided shipping papers for radioactive material that contained an error that exceeded 20 percent of the activity of the material (Example 6.I of Inspection Manual 0612, Appendix E).

Significance: The inspectors assessed the significance of the finding using Appendix D, "Public Radiation Safety SDP." The inspectors evaluated the finding by applying the radioactive material control branch of the SDP (i.e., transportation or Part 61) and determined that the finding was of very low safety significance (i.e., Green) because: (1) package radiation limits were not exceeded, (2) there was not a breach of package during transit, (3) there was not a certificate of compliance concern, (4) there was not a low level burial ground nonconformance, and (5) there was no failure to make notifications or provide emergency response information.

Cross-Cutting Aspect: P.3 - Resolution: The organization takes effective corrective actions to address issues in a timely manner commensurate with their safety significance. Specifically, the licensee determined the direct cause of this error was RP Workplan 160A, "Resin Liner Survey and Liner to Shipping Cask," did not require an adequate amount of survey points. The number and location of survey points described in Workplan 160A had been revised to incorporate lessons learned from radioactive waste shipment 19-037, and to institutionalize some of the corrective actions from CR 02360869, "Preliminary White Finding Related to Radwaste Shipment." The revision standardized the survey process for shipments to a reduced number of survey points. Consequently, the corrective action(s) to address

potentially unreliable data for use in package characterization and shipment preparation was not effective.

Enforcement:

Violation: 10 CFR 71.5(a) states that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the DOT regulations in 49 CFR parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport.

49 CFR 172.200(a) states, with exceptions not applicable here, that each person who offers a hazardous material for transportation shall describe the hazardous material on the shipping paper, in the manner required by subpart C of 49 CFR Part 172.

Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.

49 CFR 172.203(d)(3) states, in part, the description for a shipment of a Class 7 (radioactive) material must include the following additional entries as appropriate: the maximum activity of the radioactive contents contained in each package during transport in terms of the appropriate SI units (e.g., Becquerels (Bq), Terabecquerels (TBq)).

Contrary to the above, on January 14, 2021, the licensee delivered licensed material to a carrier for transport, and the description on the shipping paper that accompanied the shipment did not include the correct maximum activity of the radioactive contents. Specifically, the shipment paper stated a maximum activity of 4.21E+06 MBq. Upon subsequent evaluation, the licensee determined the activity to be 1.07E+07 MBq.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: Review of Selected Transportation of Radioactive Materials Issues	71152
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In 2019, the licensee offered for transport a radioactive material package, containing spent resin, as Low Specific Activity – II (LSA-II) that did not meet the radiation level limits specified in 49 CFR 173.427 for shipping as LSA. Specifically, licensee staff did not recognize that measured radiation levels were in excess of 10 mSv/ hour (1 Rem/hour) at 3 meters from the unshielded package, exceeding the conditions of transport for LSA material. This shipment is also known as Radwaste Shipment 19-037. (In NRC Inspection Report Nos. 05000266/2020090 and 05000301/2020090, the NRC documented a Green finding and the associated non-cited violations for the noncompliances for the shipment.)

The inspectors reviewed Root Cause Evaluation – AR 02360869, “Radwaste Shipping Error Results in Preliminary White Finding,” to ensure that the licensee implemented corrective actions, commensurate with the significance of the identified issues. Additionally, the inspectors reviewed AR 02389967, “Radiological Survey Differences Identified,” that was evaluated for another shipment of spent resin performed in January 2021.

In response to the 2019 shipping issue, the licensee determined that, “Radwaste Shipment 19-037 was assigned the incorrect shipping name and therefore did not have the proper Emergency Response Guide included in the shipping documents which resulted in

non-compliance with site and regulatory shipping requirements.” As corrective actions, the licensee:

- Revised radwaste shipping checklist RP-AA-108-1002-F06, and applicable similar checklists, to include documented validation of critical parameters when determining proper shipping names and emergency response guide;
- Incorporated a management oversight risk matrix within its procedure to drive observation and oversight of key risk-sensitive elements of the shipping process;
- Revised radwaste shipping program documents to require development of an annual projected high or elevated risk radwaste shipment schedule and include a method for periodic review and oversight of the schedule; and
- Revised applicable shipping and survey procedures to include the option for use of RADMAN calculated 3-meter dose rates vs. measured 3-meter dose rates, and to include cautions/warnings for use of measured 3-meter values, use of the RADMAN override feature, and the potential impact on Proper Shipping Name/Emergency Response Guide.

The inspectors found that the licensee had completed its implementation of the corrective actions identified.

The inspectors observed that the licensee’s revisions to its survey procedure (RP Workplan 160A) provided additional uniformity (i.e., distances and locations) to the radiation measurements performed on a package prepared for transport. The inspectors observed that the procedure also reduced the number of measurements routinely taken on a package, which appeared to be based on a package having a reasonably homogeneous mixture of radioactivity throughout the package and having consistent radiation levels from the package. Reviewing the 2019 shipment survey, the inspectors observed that there were notable gradients of radioactivity within the package, as indicated by the range of radiation levels measured by the licensee. At the time of the shipment, the licensee did not appear to recognize the gradients, and calculated the shipment contents with a computer model that relied on a reasonably homogeneous mixture. In addition, the inspectors noted that the licensee’s revised survey process did not accurately characterize the radioactivity in the 2021 shipment, providing additional indication that the licensee’s bases (homogeneous distribution of radioactivity) may not be technically sound.

The inspectors observed that the licensee’s problem statement may have limited the licensee’s evaluation and corrective actions, resulting in missing some of the underlying causes. As discussed above, the licensee’s evaluation did not appear to fully recognize some issues with its survey methods and waste characterizations, which were discussed in NRC Inspection Report Nos. 05000266/2020090 and 05000301/2020090. In the report, the NRC documented that, “The NRC staff observed that the material appeared to have some gradients in the radionuclide distribution (radiation levels were not fully uniform across the container), which may have impacted the licensee’s calculations.” The inspectors determined that these shortcomings contributed to the non-cited violation documented above. The licensee was evaluating additional corrective actions to address the radiological survey issues.

Observation: Semi Annual Trend Review	71152
<p>The inspectors reviewed action requests entered into the corrective action program for the following:</p> <ul style="list-style-type: none"> <li>• complete, accurate, and timely documentation of the issue identified in the corrective action program</li> <li>• evaluation and timely disposition of operability and reportability issues</li> <li>• consideration of extent of condition and cause, generic implications, common cause, and previous occurrences</li> <li>• classification and prioritization of the problem’s resolution, commensurate with the safety significance</li> <li>• identification of corrective actions that are appropriately focused to correct the problem</li> <li>• completion of corrective actions in a timely manner, commensurate with the safety significance of the issue</li> <li>• identification of negative trends associated with human or equipment performance that can potentially impact nuclear safety</li> <li>• operating experience is adequately evaluated for applicability, and applicable lessons learned are communicated to appropriate organizations, and implemented</li> </ul> <p>The inspectors completed the review and did not note any significant trends that weren't already identified and addressed by the licensee.</p>	

**EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On October 5, 2021, the inspectors presented the integrated inspection results to Mr. M. Holzmann, Site Operations Director, and other members of the licensee staff.
- On August 19, 2021, the inspectors presented the radiation protection inspection results to Mr. M. Strobe, Site Vice President, and other members of the licensee staff.
- On September 2, 2021, the inspectors presented the Biennial Licensed Operator Requalification Program inspection results to Mr. M. Strobe, Site Vice President, and other members of the licensee staff.
- On September 29, 2021, the inspectors presented the Biennial Licensed Operator Requalification Program Annual Operating Test Results inspection results to Mr. A. Moore, Operations Training Supervisor, and other members of the licensee staff.



**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Corrective Action Documents Resulting from Inspection	AR 02400605	Update ISO DWG to Depict Gravity Supports as Restraints	08/09/2021
	Drawings	110E017 Sheet 2	Safety Injection System	67
		110E017 Sheet 3	Safety Injection System	48
		110E035 Sheet 1	P&ID Safety Injection System	56
		110E035 Sheet 2	P&ID Safety Injection System	61
		M-202 Sh. 2	P&ID Feedwater System	56
		M-202 Sh. 3	P&ID Feedwater System	3
		M-209 Sh. 12	P&ID Em. Diesel Air Starting Sys.	27
		M-219 Sh. 1	P&ID Fuel Oil System	51
		M-219 Sh. 2	P&ID Fuel Oil System - Diesel Generator Building	16
		P-202	Suction from RWST to SI, CS, RHR Pumps	17
		P-219	Safety Injection Pump Discharge to Injection SI-1501R-1 and SI-1501R-3	14
	P-220	Safety Injection Pump Discharge to Injection Line SI-1501R-1 and SI-1501R-2	15	
	Miscellaneous	CL 10D	Fuel Oil Systems	26
CL 11A G-02		G-02 Diesel Generator Checklist	33	
71111.05	Corrective Action Documents Resulting from Inspection	AR 2400835	Plant Housekeeping Issues Identified by NRC	08/11/2021
	Fire Plans	PFP-0-CB	Pre-Fire Plan Control Building - Elev 8 ft, 26 ft, 44 ft and 66 ft	3
		PFP-0-PAB-8	Pre-Fire Plan Primary Auxiliary Building Elevations 8' and Below	3
71111.06	Calculations	2009-0008	Circulating Water Pump House Internal/External Flooding	2
		2014-0007	Allowable Flood Levels	3 & 4
	Procedures	NP 8.4.17	PBNP Flooding Program	34, 35, & 36
	Work Orders	WO 40753341-01	P-290A, Annual Service / Maintenance	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		WO 40753342-01	P-290B, Annual Service / Maintenance	0
		WO 40756075-01	Manhole: Electrical Inspections (Yearly - Fall)	0
71111.11A	Miscellaneous	Requalification Program Annual Testing Summary Results	Licensed Operator Annual Examination Performance Records for 2021	09/27/2021
71111.11B	Corrective Action Documents	AR 1911813	Procedure Variance for AOP-9A (Service Water System Malfunction)	10/13/2013
		AR 2302377	EC 292423 Unit 1 Cycle 39 Core Reload Modification	02/18/2019
		AR 2368376	EC 294656 Unit 1 Cycle 40 Core Reload Modification	09/15/2020
		AR 2373582	Simulator - U1C40 Core Test Acceptance Criterion Not Met	10/28/2020
		AR 2382181	Crew Failure During NRC Operational Exam	01/27/2021
		AR 2385859	NRC Biennial Written Exam Security Issue	03/03/2021
		AR 2388219	License Termination Letter Not Sent to NRC within 30 Day Requirement	03/29/2021
	Engineering Evaluations	AR 2389305	2021Biennial Written Exam Performance	04/08/2021
		Post Event Testing	Unit 1 Small RCS Leak in Containment Building – Validate 1Re-211 Simulator Response	05/21/2020
		Scenario Based Testing (SBT) Checklist	SBT Package for PNB LOC 000 043E Simulator Exercise Guide (SEG) Rev 5	06/19/2021
		Scenario Based Testing Checklist	SBT Package for PNB LOC 000 003E SEG Rev 6	06/19/2021
		Simulator Certification Test 6.2.1	100% Power Steady State Performance Test U1C40	05/23/2021
		Simulator Certification Test 6.2.2	75% Power Steady State Performance Test U1C40	05/23/2021
		Simulator Certification Test 6.2.3	28% Power Steady State Performance Test U1C40	05/23/2021
Simulator Certification Test	PORV Open without High Head Safety Injection U1C39/40	05/15/2021		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		6.5.10		
		Simulator Certification Test 6.5.2	Simultaneous Trip of Both Main Feed-Water Pumps U1C39/40	04/24/2021
		Simulator Certification Test 6.5.5	Trip of a Single Reactor Coolant Pump U1C39/40	05/15/2021
		Simulator Certification Test 6.5.8	Loss of Coolant Accident (LOCA) with Loss of Offsite Power U1C39/40	05/15/2021
	Miscellaneous	2020 Give 2 EXAM RO	RO Written Examination	02/17/2021
		2020 Give 2 EXAM SRO	SRO Written Examination	02/17/2021
		Attendance Records	Licensed Operator Continuous Training Attendance Records (Various)	2019-2020
		License Reactivation Records	License Reactivation Records for 4 Individuals – 04/24/2020 – 07/21/2020	08/31/2021
		Medical Records	Licensed Operator Medical Records for 11 Operators	09/01/2021
		PBN JPM P000.008a.COT	Job Performance Measure	1
		PBN JPM P000.020a.AOT	Job Performance Measure	7
		PBN JPM P000.033b.COT	Job Performance Measure	5
		PBN JPM P000.037.COT	Job Performance Measure	3
		PBN JPM P000.047b.AOT	Job Performance Measure	2
		PBN JPM P000.047c.AOT	Job Performance Measure	0
PBN JPM P002.005c.COT	Job Performance Measure	0		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PBN JPM P004.013a.COT	Job Performance Measure	3
		PBN JPM P004.026.AOT	Job Performance Measure	3
		PBN JPM P078.006.AOT	Job Performance Measure	4
		PBN SEG LOC 000 003E	Simulator Dynamic Scenario	6
		PBN SEG LOC 000 026E	Simulator Dynamic Scenario	6
		PBN SEG LOC 000 043E	Simulator Dynamic Scenario	5
		PBN SEG LOC 000 068E	Simulator Dynamic Scenario	0
		Remediation Records	2020 Annual Operating Test Failure Remediation Packages for 3 Individuals	09/01/2021
		Remediation Records	2020 Biennial Written Exam Failures Remediation Packages for 7 Individuals	09/01/2021
		Simulator Review Committee (SRC) Meeting Minutes	SRC Meeting Minutes from January 2021	01/24/2021
		Simulator Review Committee (SRC) Meeting Minutes	SRC Meeting Minutes from June 2021	06/10/2021
		Simulator Work Request (SWR) Listing	List of all Open SWR Items	08/30/2021
		SWR Listing	List of all SWR Items Closed Since Previous Biennial Requal Inspection	08/30/2021
		Watch Proficiency Records	eSOMS Credit for Standing Watch 04/01/2021 to 06/28/2021 Reports	08/31/2021
	Procedures	Desktop Guide 94.0	Simulator Health Management	4
		Desktop Guide	Simulator Work Requests	3

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		94.3		
		FL-LOCT-TPD	Licensed Operator Continuing Training Program Description	3
		OP-AA-100-1001	License Maintenance and Activation	7
		TR-AA-220-1002	NRC Licensed Operator Exam Security	5
		TR-AA-220-1004	Licensed Operator Continuing Training Annual Operating and Biennial Written Exams	7
		TR-AA-221-1000	Simulator Change Control	6
		TR-AA-230-1007	Conduct of Simulator Training and Evaluation	14
		TR-AA-230-1007-F01	Crew Simulator Evaluation Forms for 2021 Annual Operating Test – Crew A	2
		TR-AA-230-1007-F02	Individual Simulator Evaluation Forms for 2021 Annual Operating Test – Crew A-All Operators	3
		TR-AA-230-1008	Simulator Scenario Based Testing and Validation	4
	Work Orders	Simulator Work Request 2291459	EC 291769 Fire Detection Upgrade - Phase II	11/20/2018
		Simulator Work Request 2329323	Xenon Response During Rapid Load Reduction	09/26/2019
		Simulator Work Request 2398451	Add PPCS Failure Malfunctions	07/14/2021
71111.11Q	Miscellaneous	PBN LOC 000 069E	NRC Annual Operating Exam	0
	Procedures	OP 1B	Reactor Startup	81
		OP 1B Appendix A	Estimated Critical Position Calculation	18
71111.12	Procedures	NP 11.1.14	Inspection Planning	12
		NP 11.1.15	Quality Control Inspections	6
	Work Orders	WO 40178723 11	G-01-FTS-H/L//Numerous Fuel Oil XTFR Alarms G-01	08/21/2021
		WO 40720934 10	U2 RPI/EC-294454 - RPI Replacement	09/09/2021
		WO 40722095 01	F-222/G-02 SW Inlet Duplex Strainer Not to be Cleaned	09/14/2021
		WO 40739986 02	2-62/YIC-926B-T, Bench Calibrate Replacement Relay	09/17/2021
		WO 40760281 05	PI-3719, P-35A Disch. Press. Indicating Low	09/16/2021
WO 40765372 01	2P-2A-Z/Cooling Fan Replacement	09/03/2021		
71111.13	Miscellaneous		Point Beach Elevated Risk Focus Activities for the Turbine	07/21/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Trip Test Unit 1 Quarterly	
			PBN Unit 1 and 2 Current Risk Summary Report	08/10/2021
			T-0 Execution Schedule, by Early Start	08/09/2021
			Point Beach Elevated Risk Focus Activities for the DY-0A Red 125V DC / 120V AC Inverter Maintenance	07/20/2021
			Point Beach Work Activity High Risk List for the D-305/D-09 Station Battery / Charger Maintenance and Service Test	08/31/2021
			T-0 Execution Schedule, by Early Start	08/01/2021
	Procedures	AOP-13C	Severe Weather Conditions	48
	Work Orders	WO 40730660 01	TS-3A, Unit 1 Turbine Trip Test	07/21/2021
71111.15	Corrective Action Documents	AR 02394000	1CS-476 Failed to Operate in Auto	05/22/2021
		AR 2404583	G-02 Fuel Oil Transfer Pump Would Not Shut Off Manually	09/19/2021
		AR 3404006	Elevated Vibrations on G-02 EDG During TS 82	09/13/2021
	Drawings	883D195 Sheet 10	Logic Diagram Feedwater Control and Isolation	17
M-202 Sheet 2		Feedwater System	56	
71111.19	Corrective Action Documents Resulting from Inspection	AR 02400516	1CS-2187 Suction Relief Valve was Noted to be Dripping	08/07/2021
		AR 02402759	DGB Door 107 Not Self Latching	08/31/2021
	Miscellaneous		1P-28B Steam Generator Feed Pump and Motor Monitoring Plan	0
	Procedures	OI 169	Steam Generator Feed Pumps Isolation and Restoration Mode 1, 2, or 3 Unit 1	19
		OP 1C	Startup to Power Operation Unit 1	45
	Work Orders	WO 40738003 09	DY-0A, Maintain and Inspect Inverter	07/20/2021
		WO 40779246 01	IT 04 Train B Low Head Safety Injection Pumps and Valves Train B Unit 2	09/10/2021
		WO 40787760 18	1P-28B (MFP) Trip on Timed Overcurrent	08/10/2021
WO 40788643		TS-81, G-01 Emergency Diesel Generator Operability Test	08/22/2021	
		WO 40789102 01	P-215A G-03 Lube Oil Recirc Pump Noisy	08/31/2021
71111.22	Procedures	1ICP 02.003A	Reactor Protection System Logic Train A 31 Day Surveillance	14

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	WO 40744625 01	TS-83, G-03 Emergency Diesel Generator Operability	07/25/2021
71124.08	Corrective Action Documents Resulting from Inspection	AR 02401599	Source Leak Check Certificate Mismatch	08/19/2021
	Miscellaneous	LMS ID NUCRPT 1030	Lesson Title - 10CFR37 Cat 1 & 2 Material	1
		RP-AA-107-1004-F02	Source Leak Test and Inventory	08/12/2021
		TRM 3.7.4	Sealed Radioactive Sources	0
	Procedures	PCP	Process Control Program	7
RP-AA-107-1004		Procedure for Radioactive Source Controls and Leak Testing	4	
71151	Miscellaneous		MSPI Derivation Reports; High Pressure Injection, Emergency AC, Cooling Water; Unavailability Index; Units 1 and 2	07/01/2020 - 06/30/2021
			MSPI Derivation Reports; High Pressure Injection, Emergency AC, Cooling Water; Unreliability Index; Units 1 and 2	07/01/2020 - 06/30/2021
			MSPI Margin Reports; Units 1 and 2	07/01/2020 - 06/30/2021
		NP 5.2.16 - Occupational Exposure Effectiveness	Attachment B; PI Data Calculation, Review and Approval	October 2020 - June 2021
		NP 5.2.16 - ODCM Radioactive Effluents Effectiveness	Attachment B; PI Data Calculation, Review and Approval	October 2020 - June 2021
		NP 5.2.16 - RCS Activity Fuel Performance	Attachment B; PI Data Calculation, Review and Approval	October 2020 - June 2021
	Procedures	CAMP 044	Fuel Integrity Monitoring	4

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CAMP 410	Determination of Radioactive Iodine and Iodine 131 Equivalents in Reactor Coolant	10
		PBN-BFJR-18-054	MSPI Basis Document for PBNP	26
71152	Corrective Action Documents	AR 02360869	Preliminary White Finding Related to Radwaste Shipment	01/13/2021
		AR 02389967	Radiological Survey Differences Identified	04/14/2021
	Corrective Action Documents Resulting from Inspection	AR 02401505	Procedure Change Request to Revise RP-AA-108-1003 "Radioactive Materials Surveys for Shipment" to add LSA/SCO Dose Rate Limits for Unshielded Material at 3-meters.	08/18/2021
		AR 02401602	Highest Contact Reading Discrepancy Identified	08/19/2021
		AR 02401619	Weight Discrepancy on Shipment 18-058	08/19/2021
		AR 2395628	Small Gap Identified Between FZs 245 and 322	06/10/2021
	Miscellaneous		Trend ARs 12-01-2020 thru 05-31-2021	06/09/2021
	Procedures	RP-AA-108-1002	Shipment of Radioactive Material	16
		RP-AA-108-1003	Radioactive Materials Surveys for Shipment	10
	Radiation Surveys	E-RS 210406-08	Container No 678141-2 Incoming Survey	04/06/2021
		E-RS 210407-06	Container No 678141-2 Incoming Liner	04/08/2021
Shipping Records	Shipment 21-001	Primary Resin	01/14/2021	
	Shipment 21-001 (Revised)	Primary Resin	04/21/2021	
71153	Corrective Action Documents	AR 2399946	Unit 1 Reactor Trip due to 1P-28B MFP Trip	08/01/2021