NEXTera ENERGY POINT BEACH

NRC 2018-0050
10 CFR 50.90

November 16, 2018

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301

Subject: Response to Request for Additional Information Regarding License Amendment Request 288, Request to Extend Containment Leakage Rate Test Frequency

References:

1. NextEra Energy Point Beach, LLC letter NRC 2018-0018 "License Amendment Request 288, Request to Extend Containment Leakage Rate Test Frequency," March 30, 2018 (ML18092A239)
2. NRC e-mail "Final Request for Additional Information - License Amendment Request 288 to Extend Containment Leakage Rate Test Frequency for Point Beach Nuclear Plants, Units 1 and 2 - EPID L-2018-LLA-0097," October 15, 2018

In Reference 1, NextEra Energy Point Beach, LLC (NextEra) submitted a license amendment request (LAR) for the Point Beach Nuclear Plant, Units 1 and 2. The proposed change would revise TS 5.5.15, "Containment Leakage Rate Testing Program," to require a program in accordance with Nuclear Energy Institute (NEI) topical report NEI 94-01, Revision 3-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J."

In Reference 2, the NRC staff requested additional information to support its review of the LAR. The enclosure to this letter provides the requested information.

This response does not alter the conclusions in Reference 1 that the proposed change does not involve a significant hazards consideration pursuant to 10 CFR 50.92, and there are no significant environmental impacts associated with the change.

This letter contains no new or revised regulatory commitments.

Should you have any questions regarding this submittal, please contact Mr. Eric Schultz, Licensing Manager, at 920-755-7854.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on Nov 15, 2018

Sincerely,

Robert Craven
Site Director
NextEra Energy Point Beach, LLC

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
Public Service Commission of Wisconsin

Enclosure

Response to Request for Additional Information

PRA RAI 01 – Addition of FLEX into the PRA Models

In order to meet certain NRC regulations and orders (such as NRC Order EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," issued after the Fukushima Dai-ichi accident), licensees have developed and integrated mitigating strategies into plant operations including Diverse and Flexible Coping Strategies (FLEX). As these changes are implemented, licensees are starting to incorporate these new strategies into their PRA models.

The Staff has identified several challenges to incorporating these new strategies into PRA models. The NRC memorandum dated May 30, 2017, "Assessment of the Nuclear Energy Institute 16-06, 'Crediting Mitigating Strategies in Risk-Informed Decision Making,' Guidance for Risk-Informed Changes to Plants Licensing Basis" (ADAMS Accession No. ML17031A269), provides the NRC's staff assessment of challenges to incorporating FLEX equipment and strategies into a PRA model in support of risk-informed decision making in accordance with the guidance of RG 1.200.

In order for the staff to complete it's review, please provide the following information:

1. Clarify whether mitigating strategies (i.e., FLEX) are incorporated into the PRA models (e.g., internal events PRA, fire PRA, etc.) that are used in this LAR. If so,
    a. Confirm that plant-specific data is used to develop the failure probabilities.
    b. Describe the human reliability analysis (HRA) methods used.
2. Alternatively, state that FLEX does not have an impact on the CDF and LERF for this LAR.

NextEra Response

The referenced letter (ML17031A269) is concerned with crediting FLEX mitigating strategies for purposes other than those for which they were designed, primarily using portable equipment that was implemented specifically for FLEX. No portable FLEX mitigating strategies are incorporated into the Point Beach PRA models used in this LAR. The only FLEX equipment that is included in the PRA models is permanently installed plant equipment, specifically the reactor coolant pump seals and the auxiliary feedwater crosstie capability. These permanent plant modifications were already credited in Amendments 256 and 260, Transition to a Risk-Informed, Performance Based Fire Protection Program in Accordance with 10 CFR 50.48(c). Crediting additional FLEX mitigating strategies would increase capabilities to restore or maintain core cooling, containment, and spent fuel pool cooling in the event of beyond-design-basis events. By not crediting additional FLEX mitigating strategies, the PRA models used in the LAR 288 risk assessment, and the CDF and LERF values upon which the conclusions are based, are conservative with respect to the current plant configuration.

SCPB RAI-1

REGULATORY BASIS

10 CFR 50, Appendix J, Option B, Section V.B.3, requires that the RG or other implementation document used by a licensee to develop a performance-based leakage-testing program be included, by general reference, in the plant TSs.

Point Beach Nuclear Plant, Units 1 and 2 Technical Specification 5.5.15, "Containment Leakage Rate Testing Program," currently invokes as its implementation documents both:

- Regulatory Guide 1.163, "Performance-Based Containment Leak Test Program," dated September 1995
- NEI 94-01, Rev. 0, Industry Guidance for Implementing Performance Based Option of 10 CFR 50, Appendix J

ISSUE

LAR Section 3.1.2, "Type B and Type C Testing," states, in part:

> For Type B testing, 5 penetrations for Unit 1 and 6 penetrations for Unit 2 are currently on extended frequency. For both Units 1 and 2, two penetrations (each) are tested when the penetrations are opened. If these penetrations are not opened for multiple outages, the penetrations are eligible for extended frequency testing. Measured leakage for these penetrations has not changed significantly over 120 months.

"Table 1 - Extended Frequency Percentages" of LAR Section 3.1.2 indicates that there are 13 total Type B Penetrations for Unit 1 and 14 total Type B Penetrations for Unit 2.

From the information and data available in the LAR and PBNP UFSAR, the staff cannot accurately interpret the "% Extended" (i.e., 38.5% Unit 1; 42.9% Unit 2) data contained in Table 1. In particular, for Unit 1 are there six (i.e., 13 – 5 – 2) containment Type B penetrations not on an extended test intervals because of: (a) Type B test failures or (b) these six penetrations are opened each refueling outage and therefore not eligible for extended test intervals. Similarly, for Unit 2 are there six (i.e., 14 – 6 – 2) containment Type B penetrations not on an extended test intervals because of: (a) Type B test failures or (b) these six penetrations are opened each refueling outage and therefore not eligible for extended test intervals.

REQUEST

For an established Appendix J, Option B, LLRT program with a sufficient historical base, the percentage of Type B or Type C components on repetitive frequencies can indicate the quality of the maintenance program and corrective action process.

Provide the following information for PBNP Units 1 and 2:

(a) The total number (i.e., population) and percentage of the total number of eligible PBNP Type B tested components currently on a 120-month extended performance-based test interval

(b) The total population of electrical penetrations each in Unit 1 and in Unit 2.

NextEra Response

NextEra discussed SCPB RAI-1 with NRC staff during a clarification call on October 10, 2018. NextEra agreed to provide additional information for type B penetrations, and the NRC staff agreed that providing the total population of electrical penetrations (other than type B) in each Unit was unnecessary.

Unit 1 Type B Penetration Summary:

The total population of penetrations that require Type B testing for PBNP Unit 1 is 13. None of the eligible penetrations are on a 120-month extended performance based test frequency. None of the eligible penetrations have failed to meet their administrative limits or have adverse maintenance history. NextEra has conservatively elected to test the eligible penetrations more often as an early detection and preventative maintenance technique.

Five of the 13 penetrations are electrical penetrations currently on a 3R (refueling) extended test frequency. These penetrations have an excellent test/maintenance history and are eligible for testing on a 120-month extended test frequency in the future. The higher test frequency is considered an Appendix J program conservatism.

There are four Unit 1 mechanical penetrations that are eligible for testing on an extended test frequency. Three of the four penetrations are opened each outage and will remain on a 1R frequency. The remaining penetration is the equipment hatch flange seal, which is currently scheduled on a 1R frequency and is eligible for a 120-month frequency. However, since the flange is periodically opened during refueling outages it is not likely to reach a 120-month test frequency. Testing of the equipment hatch flange seal will continue to be performed at a test frequency not to exceed 120 months and whenever the hatch has been removed during refueling outages.

There are four Unit 1 mechanical penetrations that are considered not eligible for an extended test frequency. These include the equipment airlock, personnel airlock, and the purge exhaust and supply flanges. These penetrations are tested on a 1R frequency.

Unit 1 - Type B Penetrations

Item No.	*Penetration No.*	*Penetration Description*	*Outage Use*	*Eligible for Extended Freq*	*Currently On Extended Frequency*	*CURRENT TEST FREQ*	*FUTURE FREQUENCY CHANGE*
1	P56	Cap B (fiber optic spare) and Blank Flange	Used Each Outage	Yes	No	1R	No
2	PC-1	C-1 Equipment Airlock	Used Each Outage	No	No	1R	No
3	PC-2	C-2 Personnel Airlock	Used Each Outage	No	No	1R	No
4	PQ-58	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
5	PQ-21	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
6	PQ-22	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
7	PQ-28	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
8	PQ-54	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
9	PC-3	Fuel Transfer Tube Penetration	Used Each Outage	Yes	No	1R	No
10	V1	Purge Exhaust Flange	Used Each Outage	No	No	1R	No
11	V2	Purge Supply Flange	Used Each Outage	No	No	1R	No
12	C-3	Fuel Transfer Tube Closure Assembly	Used Each Outage	Yes	No	1R	No
13	C-1	Equipment Hatch Flange Seal	Typically Used Each Outage	Yes	No	1R	Yes - 120 Months / Test if used.

Unit 2 Type B Penetration Summary:

The total population of penetrations that require Type B testing for PBNP Unit 2 is 14. One (7%) of the eligible penetrations is on a 120-month extended performance based test frequency. None of the eligible penetrations have failed to meet their administrative limits or have adverse maintenance history. NextEra has conservatively elected to test the eligible penetrations more often as an early detection and preventative maintenance technique.

Five of the 14 penetrations are electrical penetrations currently on a 3R extended test frequency. These penetrations have an excellent test/maintenance history and are eligible for testing on a 120-month extended frequency in the future. The higher test frequency is considered an Appendix J program conservatism.

There are five Unit 2 mechanical penetrations that are eligible for testing on an extended test frequency. One of the five penetrations, the eddy current test penetration is currently on a 120-month extended test frequency. Three of the five penetrations are opened each outage and will remain on a 1R frequency. The remaining penetration is the equipment hatch flange seal, which is currently scheduled on a 1R frequency and is eligible for the 120-month frequency. However, since the flange seal is periodically opened during refueling outages, it is not likely to reach a 120-month test frequency. Testing of the equipment hatch flange seal will continue to be performed at an interval not to exceed 120 months and whenever the hatch has been removed during refueling outages

There are four Unit 2 mechanical penetrations that are considered not eligible for an extended test interval. These include the equipment airlock, personnel airlock, and the purge exhaust and supply flanges. These penetrations are tested on a 1R interval.

Unit 2 - Type B Penetrations

Item No.	*Penetration No.*	*Penetration Description*	*Outage Use*	*Eligible for Extended Freq*	*Currently On Extended Frequency*	*CURRENT TEST FREQ*	*FUTURE FREQUENCY CHANGE*
1	P56	Cap B (fiber optic spare) and Blank Flange	Used Each Outage	Yes	No	1R	No
2	PC-1	C-1 Equipment Airlock	Used Each Outage	No	No	1R	No
3	PC-2	C-2 Personnel Airlock	Used Each Outage	No	No	1R	No
4	PQ-58	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
5	PQ-20	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
6	PQ-22	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
7	PQ-1	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
8	PQ-54	Electrical penetration	Not Used	Yes	Yes	3R	Yes - 120 Months
9	PC-3	Fuel Transfer Tube Penetration	Used Each Outage	Yes	No	1R	No
10	V1	Purge Exhaust Flange	Used Each Outage	No	No	1R	No
11	V2	Purge Supply Flange	Used Each Outage	No	No	1R	No
12	C-3	Fuel Transfer Tube Closure Assembly	Used Each Outage	Yes	No	1R	No
13	C-1	Equipment Hatch Flange Seal	Typically Used Each Outage	Yes	No	1R	Yes - 120 Months / Test if used.
14	P67-2	Eddy Current Test Penetration	Not used each outage	Yes	Yes	120 Months	No