NEXTera® ENERGY POINT BEACH

May 28, 2015

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10 CFR 50.90

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

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301
License Nos. DPR-24 and DPR-27

Response to Request for Additional Information for Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program

References:
(1) NextEra Energy Point Beach, LLC, letter to NRC, dated July 3, 2014, "License Amendment Request 273, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program" (ML14190A267)
(2) NRC Electronic Mail to NextEra Energy Point Beach, LLC, dated August 13, 2014, "Point Beach Nuclear Plant, Units 1 and 2 - Acceptance Review re: Risk-Informed Justification for Relocation of Specific TS Surveillance Frequencies (TAC NOS. MF4379 and MF4380)" (ML14226A011)
(3) NextEra Energy Point Beach, LLC, letter to NRC, dated December 8, 2014, "Supplement to License Amendment Request 273, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program" (ML14342A416)
(4) NRC Electronic Mail to NextEra Energy Point Beach, LLC, dated February 27, 2015, "Request for Additional Information - Point Beach Nuclear Plant, Units 1 and 2 - LAR for TS Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program - TAC NOS.MF4379/80"
(5) NextEra Energy Point Beach, LLC, letter to NRC, dated March 19, 2015, "Response to Request for Additional Information for Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program"
(6) NRC Electronic Mail to NextEra Energy Point Beach, LLC, dated April 30, 2015, "Request for Additional Information - Point Beach Nuclear Plant, Units 1 and 2 - LAR 273 - TS Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program - MF4379/80"
(7) Office of Nuclear Reactor Regulation, to NextEra Energy Point Beach, LLC, dated January 27, 2015, Point Beach Nuclear Plant, Units 1 and 2 – Issuance of Amendments to Revise Technical Specifications to Adopt Technical Specifications Task Force – 523, "Generic Letter 2008-01, Managing Gas Accumulation," (TAC NOS. MF4353 & MF4354) (ML15014A249)

In Reference 1 and supplemented by Reference 3, NextEra Energy Point Beach, LLC (NextEra) submitted a request for an amendment to the Technical Specifications (TS) for Point Beach Nuclear Plant (PBNP), Units 1 and 2. The proposed amendment would modify the TS by relocating specific surveillance frequencies to a licensee-controlled document with implementation of Nuclear Energy Institute (NEI) 04-10, "Risk Informed Technical Specification Initiative 5b, Risk Informed Method for Control of Surveillance Frequencies."

In Reference 4, the NRC staff requested additional information to complete its review of the requested amendment. Reference 5 provided the NextEra response to the NRC staff's request for additional information. In Reference 6, the NRC staff requested additional information to complete its review of the requested amendment. Enclosure 1 provides the NextEra response to the NRC staff's request for additional information.

Enclosure 2 to this letter contains updated Technical Specification pages as a result of receipt of License Amendments 251 and 255 (Reference 7) that implemented new and revised surveillance requirements for gas accumulation monitoring. License Amendments 251 and 255 were issued as a result of implementing Technical Specification Task Force (TSTF) – 523. TSTF-523 allowed use of a surveillance frequency of 31 days, or the option to control the frequency in accordance with a NRC-approved Surveillance Frequency Control Program. The license amendment request for gas accumulation monitoring was submitted prior to License Amendment Request 273, therefore, the additional changes to refer to the Surveillance Frequency Control Program are considered administrative in nature. There is no impact on the No Significant Hazards Determination submitted for License Amendment Request 273. As discussed with our Project Manager, the updated pages have been included in this transmittal.

This letter contains no new regulatory commitments and no revisions to existing regulatory commitments.

This response to the request for additional information does not alter the conclusion in Reference 1 that the proposed change does not involve a significant hazards consideration.

If you have any questions regarding this letter, please contact Mr. Michael Millen at (920) 755-7845.

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

Executed on May 28, 2015.

Sincerely,

Eric McCartney
Site Vice President
Point Beach Nuclear Plant

Enclosures

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
PSCW

ENCLOSURE 1

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (APPLICATION FOR TECHNICAL SPECIFICATION CHANGE REGARDING RISK -INFORMED JUSTIFICATIONS FOR THE RELOCATION OF SPECIFIC SURVEILLANCE FREQUENCY REQUIREMENTS TO A LICENSEE CONTROLLED PROGRAM)

RAI #1

Nuclear Energy Institute (NEI) 04-10, Revision 1 (Agencywide Document and Management System ADAMS Accession No. ML071360456), Section 4.0, Step 8, states that:

> *The risk impact of a proposed [Surveillance Test Interval (STI)] adjustment shall be calculated as a change of the test-limited risk (see Regulatory Guide 1.177, Section 2.3.3). Since the test-limited risk is associated with failures occurring between tests, the failure rate that shall be used in calculating the risk impact of a proposed STI adjustment is the time-related failure rate associated with failures occurring while the component is in standby between tests (i.e., risk associated with the longer time to detect standby-stress failures).*

Describe how the Point Beach Surveillance Frequency Control Program will address the standby (i.e., the time-related) contribution for extended surveillances.

NextEra Response

The standby time-related contribution evaluation will be performed in accordance with NEI 04-10, Risk-Informed Technical Specifications Initiative 5b Risk-Informed Method for Control of Surveillance Frequencies, Revision 1. Any changes to the frequencies listed in the Surveillance Frequency Control Program (SFCP) will comply with the following guidance from NEI 04-10, Revision 1:

> In general, the failure probability values of components used in PRAs consist of a time-related contribution (i.e. the standby time-related failure rate) and a cyclic demand-related contribution (i.e. the demand stress failure probability). The risk impact of a proposed STI adjustment shall be calculated as a change of the test limited risk (see Regulatory Guide 1.177, Section 2.3.3). Since the test-limited risk is associated with failures occurring between tests, the failure rate that shall be used in calculating the risk impact of a proposed STI adjustment is the time-related failure rate associated with failures occurring while the component is in standby between tests (i.e. risk associated with the longer time to detect standby-stress failures). Therefore, caution should be taken in dividing the failure probability into time-related and cyclic demand-related contributions because the test-limited risk can be underestimated when only part of the failure rate is considered as being time-related while this may not be the case. Thus, if a breakdown of the failure probability is considered, it shall be justified through data and/or engineering analyses. When the breakdown between time-related and demand-related contributions is unknown, all failures shall be assumed to be time-related to obtain the maximum test-limited risk contribution.

RAI #2

NEI 04-10, Revision 1, Section 4.0, Step 10, provides guidance on the initial assessment of Internal Events, External Events, and Shutdown Events. Describe how shutdown events will be assessed as part of the Point Beach Surveillance Frequency Control Program.

NextEra Response

The shutdown risk evaluation will be performed in accordance with NEI 04-10 Revision 1 which permits quantitative or qualitative assessment of shutdown risk impacts. Fleet procedures were written consistent with Nuclear Energy institute (NEI) industry guidance document, NEI 04-10, Risk-Informed Technical Specifications Initiative 5b Risk-Informed Method for Control of Surveillance Frequencies, Revision 1, for performing the shutdown risk assessment. Documentation of the assessment will include the following:

- Identification of applicable MODES of Operation that were used.
- If shutdown risk can be quantified then CDF and LERF will be calculated for shutdown risk and included in the cumulative risk of all changes assessed. Point Beach does not currently have a RG 1.200 shutdown model. As such the shutdown risk assessments will be based on the Point Beach shutdown safety assessment developed in support of NUMARC 91-06, an application-specific shutdown analysis, a bounding sensitivity analysis, or other acceptable method described in NEI 04-10 Revision 1.

RAI #3

Section 3.2.3 of Attachment 2 of the license amendment request (LAR) states:

> *The risk analyses of the other external hazards were performed and published in the Point Beach [Individual Plant Examination (IPE)] and the [Individual Plant Examination of External Events (IPEEE)] in the 1990s and have not been updated since. These analyses were typically bounding and screening evaluations and not well-suited for configuration-specific risk applications. Therefore, in performing the assessments for the other hazard groups, a qualitative or a bounding approach will be used in most cases.*

The NRC staff notes that Sections 2.2 and 5.0 of Attachment 2 of the LAR refer to documentation associated with the Point Beach High Winds Probabilistic Risk Assessment (PRA) model. Section 3.2.4 states that the "Fire PRA model will be exercised to obtain quantitative fire risk insights but refinements may need to be made on a case-by-case basis."

Clarify how the Point Beach High Winds PRA model will be used, e.g., in a similar manner to the Fire PRA, as part of the Point Beach Surveillance Frequency Control Program.

NextEra Response

Point Beach is committed to evaluating surveillance test interval (STI) changes in accordance with NEI 04-10, Revision 1. The Fleet process is governed by procedure, based on NEI 04-10, Revision 1 that provides the approach to be taken in addressing external events, including high winds. In the case of the Point Beach High Winds PRA, as well as for other external events including fire, a qualitative or bounding approach will be used in most cases. This approach is consistent with the accepted NEI 04-10, Revision 1 methodology.

RAI #4

Attachment A to Attachment 2 of the LAR discusses the impact of peer review Facts and Observations (F&Os) findings for the Point Beach Internal Events and Internal Flooding PRA model. The resolution of the 2011 full-scope peer review finding for F&O IE-A1-01 indicates that the core damage frequency (CDF) due to a failed 4.16kV AC vital switchgear bus initiator is between 1.9E-7 and 1.2E-9. The resolution also states that "Because these initiators are not significant contributors they are not included in the Internal Events PRA." While only providing a small risk contribution to the total baseline CDF, excluding this initiator may impact the risk-informed STI extensions associated with a vital switchgear bus, particularly at the upper end of the range cited for CDF (i.e., 1.9E-7).

Explain how the Point Beach Surveillance Frequency Control Program will consider the impact of excluding this initiator for the associated equipment.

NextEra Response

Point Beach is committed to evaluating surveillance test interval (STI) changes in accordance with NEI 04-10, Revision 1. The Fleet process is governed by procedure, based on NEI 04-10, Revision 1 that provides the approach to be taken for performing sensitivity studies (Step 14) for open Gap Analysis items when compared to the ASME Standard Capability Category II that would impact the results of the assessment.

For those STI changes that could be adversely affected by this F&O, a sensitivity study case will be performed to determine the impact on the CDF and LERF results. Those results will be compared to the RG 1.174 limits to determine the next step, as described in Step 14 of NEI 04-10, Revision 1 and Section 4 of the Fleet procedure governing PRA evaluations for the surveillance frequency control program.

RAI #5

Attachment B to Attachment 2 of the LAR discusses the impact of F&Os which are considered to be open or only partially resolved. The resolution of the 2011 full-scope peer review finding for F&O AS-B7 states that:

> *... [loss of offsite power (LOOP)] recovery is applied to only [station blackout (SBO)] sequences and DC battery life is not considered (i.e. assumed to Fail at 0 hours). This is conservative since recoveries which could be applied to reduce CDF and [large early release frequency (LERF)] are not applied. Removing these conservatisms may be considered in the future...*

The NRC staff notes that while the total risk may be conservative, the delta risk when evaluating a change in STI may be underestimated. This can occur whenever a risk-informed STI is being determined for structures, systems, and components whose benefit is included in the PRA for some sequences, initiators or parts of a model, while conservatively not including it in other parts of the model.

Provide further justification for why the conservative modeling for LOOP recovery and credit for batteries would not significantly impact the relevant STIs for associated equipment (e.g., batteries) or describe how this impact will be considered in the Point Beach Surveillance Frequency Control Program.

NextEra Response

Point Beach is committed to evaluating surveillance test interval (STI) changes in accordance with NEI 04-10, Revision 1. The Fleet process is governed by procedure, based on NEI 04-10, Revision 1 that provides the approach to be taken for performing sensitivity studies (Step 14) for open Gap Analysis items when compared to the ASME Standard Capability Category II that would impact the results of the assessment.

With regard to F&O AS-B7, the current DC battery model allows for only limited recovery of offsite power, i.e., the recovery of offsite power does not account for the extra time afforded by battery depletion. This recovery model results in conservative CDF/LERF values and could potentially underestimate the delta-risk of a proposed STI change for the batteries. It should not have a similar impact on the delta-risk calculated for other SSCs. Therefore, if an STI extension is being considered for the batteries, an assessment will be performed to determine if the current modeling of the recovery of offsite power results in an underestimation of the delta risk impact. If it does, the delta risk for the battery STI extension will be modified appropriately to account for the conservative modeling.

ENCLOSURE 2

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Updated Technical Specification
License Amendment Request Pages

3.4.6-2
3.4.6-3
3.4.7-3
3.4.8-2
3.5.2-1
3.5.2-2
3.6.6-2
3.6.6-3
3.9.4-2
3.9.5-2

10 pages follow

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required RHR loop inoperable. AND Two required RCS loops inoperable.	B.1 Be in MODE 5.	24 hours
C. Required RCS or RHR loops inoperable. OR No RCS or RHR loop in operation.	C.1 Suspend all operations involving a reduction of RCS boron concentration. AND C.2 Initiate action to restore one loop to OPERABLE status and operation.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.6.1	Verify one RHR or RCS loop is in operation.	~~12 hours~~
SR 3.4.6.2	Verify SG secondary side water levels are ≥ 35% narrow range for required RCS loops.	~~12 hours~~
SR 3.4.6.3	Verify correct breaker alignment and indicated power are available to the required pump that is not in operation.	~~7 days~~

(continued)

In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.6.4	----------NOTE---------- Not required to be performed until 12 hours after entering MODE 4. ---------- Verify required RHR loop locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.7.3	Verify correct breaker alignment and indicated power are available to the required RHR pump that is not in operation.	~~7 days~~
SR 3.4.7.4	Verify required RHR loop locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required RHR loops inoperable. OR No RHR loop in operation.	B.1 Suspend all operations involving reduction in RCS boron concentration. AND B.2 Initiate action to restore one RHR loop to OPERABLE status and operation.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.8.1	Verify one RHR loop is in operation.	~~12 hours~~
SR 3.4.8.2	Verify correct breaker alignment and indicated power are available to the required RHR pump that is not in operation.	~~7 days~~
SR 3.4.8.3	Verify RHR loop locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.2 ECCS – Operating

LCO 3.5.2 Two ECCS trains shall be OPERABLE.

----------NOTE----------
In MODE 3, both safety injection (SI) pump flow paths may be isolated by closing the isolation valves for up to 2 hours to perform pressure isolation valve testing per SR 3.4.14.1.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ECCS train inoperable.	A.1 Restore train to OPERABLE status.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.2.1	----------NOTE---------- Not required to be met for system vent flow paths opened under administrative controls. --- Verify each ECCS manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.	In accordance with the Surveillance Frequency Control Program ~~31 days~~

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.2	Verify ECCS locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~
SR 3.5.2.3	Verify each ECCS pump's developed head at the test flow point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.5.2.4	Verify each ECCS automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	~~18 months~~
SR 3.5.2.5	Verify each ECCS pump starts automatically on an actual or simulated actuation signal.	~~18 months~~
SR 3.5.2.6	Verify, by visual inspection, each ECCS train containment sump suction inlet is not restricted by debris and the suction inlet debris screens show no evidence of structural distress or abnormal corrosion.	~~18 months~~

In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One required accident fan cooler unit service water outlet valve inoperable.	D.1 Restore required accident fan cooler unit outlet valve to OPERABLE status.	72 hours AND 144 hours from discovery of failure to meet the LCO
E. Required Action and associated Completion Time of Condition C or D not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.6.1	----------NOTE---------- Not required to be met for system vent flow paths opened under administrative controls. ---------- Verify each containment spray manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	~~31 days~~
SR 3.6.6.2	Operate each containment cooling accident fan.	~~31 days~~

(continued)

In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.6.3	Verify each containment fan cooler unit can achieve a cooling water flow rate within design limits with a fan cooler service water outlet valve open.	~~31 days~~
SR 3.6.6.4	Verify each containment spray pump's developed head at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.6.6.5	Verify each automatic containment spray and containment fan cooler unit service water outlet valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	~~18 months~~
SR 3.6.6.6	Verify each containment spray pump starts automatically on an actual or simulated actuation signal.	~~18 months~~
SR 3.6.6.7	Verify each containment fan cooler unit accident fan starts automatically on an actual or simulated actuation signal.	~~18 months~~
SR 3.6.6.8	Verify proper operation of the accident fan cooler unit backdraft dampers.	~~18 months~~
SR 3.6.6.9	Verify each spray nozzle is unobstructed.	~~10 years~~
SR 3.6.6.10	Verify containment spray locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify one RHR loop is in operation.	~~12 hours~~
SR 3.9.4.2	Verify required RHR loop locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.5.1	Verify one RHR loop is in operation.	~~12 hours~~
SR 3.9.5.2	Verify correct breaker alignment and indicated power available to the required RHR pump that is not in operation.	~~7 days~~
SR 3.9.5.3	Verify RHR loop locations susceptible to gas accumulation are sufficiently filled with water.	~~31 days~~

In accordance with the Surveillance Frequency Control Program