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10 CFR 50.71(e)

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

10 CFR 50.59 Evaluation and Commitment Change
Summary Report

NextEra Energy Point Beach, LLC, is submitting the 10 CFR 50.59 Evaluation and Commitment Change Summary Report for the Point Beach Nuclear Plant, Units 1 and 2, for March 1, 2021 through October 1, 2022.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dianne Strand", written over a horizontal line.

Dianne Strand
General Manager Regulatory Affairs
NextEra Energy
Enclosure

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

ENCLOSURE

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

10 CFR 50.59 & COMMITMENT CHANGE SUMMARY REPORT FOR MARCH 1, 2021 – OCTOBER 1, 2022

10 CFR 50.59 EVALUATIONS

Procedure OI 72, Containment Air Recirculation System:

Activity Description:

Added a new Section 5.9 to procedure OI-72, Containment Air Recirculation System, to provide additional guidance to use 1(2)SW-2907(2908), HX-15A-D Containment Recirculation Heat Exchanger Emergency Flow Control Valves, during elevated containment temperature. Added a NOTE restricting the use of Section 5.9 ONLY when Containment temperatures are challenging the Technical Specification (TS) Limit.

Summary of Evaluation:

The purpose of the evaluation is to address a potential adverse effect on the SW cooling function. The use of the 1(2)SW-2907 (20-8) Emergency Flow Control Valves, during elevated containment temperature, to increase SW flow to the CFC's to ensure containment temperature stays within the limits of TS 3.6.5. This requires entry into TS 3.7.8 CONDITION F because the SW system reliability is potentially reduced by directing flow away from an accident unit.

Conclusion:

No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. [EVAL 2021-001]

Engineering Change (EC) 296204, Rev. 0

Point Beach Unit 2 Cycle 39 Core Reload Modifications/Rod Worth Measurement Elimination for Units 1 and 2

Activity Description

This design change, mainly the Unit 2 Cycle 39 core, is necessary to replace a portion of the fuel assemblies in the reactor core to enable Unit 2 to operate for Cycle 39 to meet the plant energy requirements.

Summary of Evaluation

The 50.59 evaluated the following:

The 10CFR50.59 Screening for Mode 1 Boron Dilution Event (UFSAR Section 14.1.4) reanalysis determined that there is an adverse impact on the current margin to the limit for operator action time that is a UFSAR described design function. The changes of the maximum critical HZP boron concentration (Cbc) and the RCS active volume decrease in a reanalysis for Mode 1 Boron Dilution resulted in the loss of margin to the limit (i.e., operator action time is getting closer to 15 minutes), whereas the minimum change in boron concentration to Cbc from Cbi (boron concentration at HFP, rods to insertion limits) gives a positive effect to the acceptance criteria. The reanalysis results show that the operator still has greater than 15 minutes to take action to prevent the loss of shutdown margin should an uncontrolled boron dilution occur in Mode 1 in automatic rod control or manual rod control.

Conclusion

No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. [EVAL 2021-002]

Summary of Evaluation

The 50.59 evaluated the following for Unit 2:

The activity conditionally alters the startup physics test program described in UFSAR Section 14.2.6 and ANSI/ANS 19.6.1. Specifically, it conditionally (i.e., based on compliance with the conditions described in the answer to Question 8 below) eliminates the control rod worth testing. Additionally, the activity offers an option to alter the initial conditions for the Critical Boron Concentration (CBC) and Moderator Temperature Coefficient (MTC) measurements. This change is being made to reduce critical path time, reduce time in low power operations per SOER 07-1 Recommendation 1, reduce the risk of mechanical failures in the control rod system, and to reduce the risk for human performance errors, without eliminating the intent of the test or affecting the safety of the plant. Additionally, the performance of rod worth testing requires the use of Special Test Exception (STE) to temporarily suspend Limiting Conditions of Operation (LCOs) in order to complete testing. For cycles that can eliminate the testing, there will be no need to enter the STE and the plant will remain within the bounds of the normal operating Technical Specifications. The activity was considered to screen in for further 50.59 Evaluation review per 50.59 Screening provided on pages 13 to 19.

The proposed activity is a change to a method of evaluation only. Per NEI 96-07 Rev. 1 paragraph 4.2.1.3: "Changes to methods of evaluation (only) do not require evaluation against the first seven criteria." As the proposed activity is a change to a method of evaluation only, 10 CFR 50.59(c)(2)(i-vii) are not applicable (i.e., the first seven criteria).

Conclusion

No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. [EVAL 2021-003]

Engineering Change (EC) 296204, Rev. 1

Point Beach Unit 2 Cycle 39 Core Reload Modifications/Rod Worth Measurement Elimination for Units 1 and 2

Activity Description

This design change, mainly the Unit 2 Cycle 39 core, is necessary to replace a portion of the fuel assemblies in the reactor core to enable Unit 2 to operate for Cycle 39 to meet the plant energy requirements.

Summary of Evaluation

The 50.59 evaluated the following for Unit 1:

The activity conditionally alters the startup physics test program described in UFSAR Section 14.2.6 and ANSI/ANS 19.6.1. Specifically, it conditionally (i.e., based on compliance with the conditions described in the answer to Question 8 below) eliminates the control rod worth testing. Additionally, the activity offers an option to alter the initial conditions for the Critical Boron Concentration (CBC) and Moderator Temperature Coefficient (MTC) measurements. This change is being made to reduce critical path time, reduce time in low power operations per SOER 07-1 Recommendation 1, reduce the risk of mechanical failures in the control rod system, and to reduce the risk for human performance errors, without eliminating the intent of the test or affecting the safety of the plant. Additionally, the performance of rod worth testing requires the use of Special Test Exception (STE) to temporarily suspend Limiting Conditions of Operation (LCOs) in order to complete testing. For cycles that can eliminate the testing, there will be no need to enter the STE and the plant will remain within the bounds of the normal operating Technical Specifications. The activity was considered to screen in for further 50.59 Evaluation review per 50.59 Screening provided on pages 13 to 19.

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Conclusion

No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. [EVAL 2021-004]

Engineering Change (EC) 296811

Point Beach Rod Ejection UFSAR 14.2.6 Revision

Activity Description

AR 2406133 documents a deficiency in the use of generic input for the TWINKLE code that defines the RCCA trip model characteristics of initial acceleration and terminal velocity in the Point Beach Rod Ejection Analysis. The generic values were not appropriate for Point Beach and use of plant specific values produced slightly more limiting results for the rod ejection analysis (PBNP UFSAR Section 14.2.6). EC 296811 provides UFSAR updates to reflect the revised analysis.

Summary of Evaluation

The 10CFR50.59 Screening for Rod Ejection (UFSAR Section 14.2.6) reanalysis determined that there is an adverse impact on the current analysis margin to the limits associated with the fuel melt parameters that is a UFSAR described design function. In particular, the changes to the inputs that defined the RCCA trip model characteristics of initial acceleration and terminal velocity resulted in the loss of margin to the limits of the fuel melt parameters. To offset some of this negative effect, credit is taken for the margin available in the Doppler-only power defect input. The final reanalysis results show that all applicable acceptance criteria as described in UFSAR are met with no change to the dose consequences.

Conclusion

No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. [EVAL 2021-006]

Engineering Change (EC) 294920

Point Beach Unit 1 Zinc Injection

Activity Description

This activity involved the placement of a new zinc injection system in the PAB Unit 1 Sample Room. This system is used to prepare a zinc solution (demineralized water with dissolved zinc-acetate) and inject it into the RCS via an existing non-safety related sample return line to the chemical volume control tank.

Summary of Evaluation

When zinc is added to a system that has established corrosion films on system surfaces, the zinc may replace the nickel in the corrosion films which may then be released and circulated in the coolant. These circulating corrosion products may then become available for deposition on core surfaces. The increased nickel in the system can be important since there is an observed relationship of coolant nickel concentrations with incidence of Crud Induced Power Shifts (CIPS). In the short term, the addition of zinc to the primary coolant may increase the risk of CIPS. In the long term, however, once the RCS corrosion film has thinned and stabilized with

respect to zinc incorporation, that risk will eventually be lower than prior to the use of zinc. Therefore, the short term potential increase in CIPS risk is an adverse effect which requires an evaluation.

Conclusion

No activity requiring prior NRC approval per 10 CFR 50.59 was identified. The activity neither makes nor requires changes to the limits, surveillance frequencies or associated required actions currently in Technical Specification 3.2, "Power Distribution Limits".

COMMITMENT CHANGE EVALUATIONS

There were no commitment change evaluations utilized from March 1, 2021 to October 1, 2022 that required NRC notification.