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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 Summary Report for 2011

NextEra Energy Point Beach (NextEra), LLC, is submitting the enclosed 10 CFR 50.59 Summary Report for the Point Beach Nuclear Plant (PBNP), Units 1 and 2, for calendar year 2011.

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

Very truly yours,

NextEra Energy Point Beach, LLC

W. J. Haney for Jim Costedio

James Costedio
Licensing Manager

Enclosure

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

ENCLOSURE

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

10 CFR 50.59 SUMMARY REPORT FOR 2011

10 CFR 50.59 Evaluations

Modification: Reroute of 1X-04 Low Voltage Side Power Cables to Facade

Activity Description: Modification EC 13251 installs new power cables from Transformer 1X-04 to the existing switchgear 1A-03 and 1A-04 cables located within the Unit 1 Facade. The cables are run from the transformer in trays supported by steel bridge structures spanning the roadway and Primary Auxiliary Building (PAB) Truck Bay door. The trays will enter the Unit 1 Facade's Drumming Station Extension Room and will be supported from existing structural steel in that room. The trays then will drop down to the general area of the Facade, where they will be spliced into the existing cable trays along the north wall. The modification will replace the temporary cables installed under temporary modification Engineering Change (EC) 11877, but will not remove the temporary cables.

Summary of 10 CFR 50.59 Evaluation: The EC installs new power cables from Transformer 1X-04 to the existing switchgear 1A-03 and 1A-04 cables located within the Unit 1 Facade. A 10 CFR 50.59 Screening, SCR 2010-0187, was performed and evaluated the impact that the proposed activity would have on the Current License Basis (CLB). The conclusion drawn in SCR 2010-0187 was that the only aspect of the proposed activity requiring a full 10 CFR 50.59 evaluation was the installation of a new overhead cable structure consisting of foundations for two new towers and an overhead bridge to support the new cable rerouting from 1X-04 to the Unit 1 Facade cable trays that house the 1A-03 and 1A-04 supply cables.

NRC Safety Evaluation (SE) dated August 29, 1983, Safety Evaluation of the Preferred Power Systems Conformance to General Design Criteria 17 (GDC-17) discusses the specific concern that the Point Beach Nuclear Plant (PBNP) configuration does not comply with the requirements of that GDC. The SE states in part that "the proximity of the 1X-04 and 2X-04 low voltage auxiliary transformers (approximately 16 feet apart) could conceivably render both inoperable if one were to have a catastrophic failure, thus eliminating all offsite power to the safeguard trains of both units." The SE also states that, "the inlet and outlet leads to the transformers and breakers are underground and with the exception of the Gas Turbine Building wall there are no overhead towers or cables that could fall and damage the transformers." The proposed activity would deviate from this latter statement in that the power cables from the secondary side of 1X-04 to the Unit 1 facade are routed above ground via the overhead bridge instead of in underground duct banks.

Therefore, this evaluation addresses the two new towers and the overhead bridge to support the new cable rerouting from 1X-04 to the Unit 1 Facade cable trays that house the 1A-03 and 1A-04 supply cables, and the potential need for NRC approval prior to their installation.

Conclusion: The proposed activity is consistent with current design standards for the operating conditions, will not create new or different failure modes than those previously analyzed and will not result in an increase in the probability of failures or the occurrence of accidents as analyzed in the FSAR. No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. This activity may be implemented in accordance with applicable procedures (Evaluation 2010-002).

Modification: 1A-01 and 1A-02 Loss of Voltage Relay Setpoint Changes

Activity Description: The proposed activity permits increasing the maximum allowable time delay for the 4160V Buses 1A-01 and 1A-02 undervoltage (UV) reactor trip as documented in the PBNP Final Safety Analysis Report (FSAR) from 1.5 seconds to a maximum of 2.816 seconds.

Summary of 10 CFR 50.59 Evaluation: The new analysis demonstrates that the new Complete Loss of Flow-Undervoltage (CLOF-UV) case with an undervoltage reactor trip delay of 2.816 seconds will remain bounded by the current CLOF-Underfrequency (UF) case. The new analysis (Westinghouse Calculation CN-TA-07-133, Revision1) used the LOFTRAN and FACTRAN codes to generate the statepoints for the new CLOF-UV conditions. The generated statepoints were analyzed by THINC-IV code for the explicit Departure from Nucleate Boiling Ratio (DNBR) calculation performed in CN-WEPCO-022. The use of these codes is consistent with the current methodologies used in the CLOF Analysis of Record (AOR). Therefore, the current limiting AOR, as documented in CN-TA-96-077, Revision 0, continues to remain valid. The increased delay time of 2.816 seconds for the A01 and A02 loss of voltage relays does not affect any other FSAR described analyses and thus the consequences of the FSAR events remain unchanged. The new CLOF-UV case analysis (Westinghouse Calculation CN-TA-07-133, Revision 1) is performed taking no credit for the undervoltage reactor trip function and relying on the low reactor coolant flow trip setpoint. For this, the undervoltage reactor trip was delayed beyond the time of the low flow trip which is 1.816 seconds (2.816 seconds for rod drop). Thus, the change in the undervoltage trip delay time from 1.5 seconds to 2.816 seconds is supported by the new analysis.

Conclusion: Implementation of the proposed A-01 and A-02 loss of voltage relays, and the associated increase in the Reactor Coolant Pump (RCP) UV reactor trip delay time are acceptable. This activity does not require prior NRC approval and does not involve a change to the Technical Specifications. This activity does require a change to the PBNP FSAR (Evaluation 2011-001).

Calculation Revision: Raise Emergency Operating Procedure (EOP) Setpoint 0.2 (Refueling Water Storage Tank (RWST) Level to Stop Spray Pumps) to 17% - Radiological Consequences

Activity Description: Increase the RWST level at which an operating containment spray pump drawing off of the tank is stopped in order to ensure that it is not damaged and is available for subsequent operation during containment sump recirculation.

Summary of 10 CFR 50.59 Evaluation: The potential adverse effect of the proposed activity evaluated was limited in scope to the radiological consequences of a Loss-of-Coolant Accident (LOCA). A revised radiological analysis was performed consistent with the station license basis under Alternate Source Term (AST). That analysis demonstrates that the adverse effects of the proposed activity, when combined with allowed off-setting analytical treatment of the iodine flashing fraction, results in a net reduction in the dose consequences of a LOCA. The revised

analysis is not a departure from a previously approved method of evaluation. A separate 50.59 evaluation (Evaluation 2011-004) established that other potential adverse effects (e.g. containment pressure response and sump temperature response) are bounded by the limiting license bases and are therefore acceptable.

Conclusion: The proposed activity is acceptable for implementation without prior NRC review and approval (Evaluation 2011-003-01).

Calculation Revision: Raise EOP Setpoint 0.2 (RWST Level to Stop Spray Pumps) to 17% - Containment Pressure & Temperature

Activity Description: Increase the RWST level at which an operating containment spray pump drawing off of the tank is stopped in order to ensure that it is not damaged and is available for subsequent operation during containment sump recirculation.

Summary of 10 CFR 50.59 Evaluation: The potential adverse effect of the proposed activity evaluated was limited in scope to the reduction in injection mode containment spray duration on containment pressure and temperature, including the Environmental Qualification (EQ) of Systems, Structures or Components (SSCs) important to safety. The proposed activity would not result in a more than minimal increase in the containment pressure and temperature compared to the profiles previously analyzed, would not encroach on the peak pressures and temperatures, and would not challenge the design values for containment pressure, EQ pressure, and EQ temperature. It would have no discernable affect on the containment sump temperatures.

Conclusion: The proposed activity is acceptable for implementation without prior NRC review and approval (Evaluation 2011-004).

Engineering Evaluation: Justification of Integral Fuel Burnable Absorbers (IFBA) fuel rod patterns for the SFP Criticality Analysis

Activity Description: The proposed activity permits allowing the fresh fuel assemblies containing the 8, 24 and 40 IFBA fuel rod patterns (as defined in EC 273511) in the SFP criticality analysis which was not previously analyzed.

Summary of 10 CFR 50.59 Evaluation: The evaluation demonstrates that the SFP criticality analysis using additional 8, 24 and 40 IFBA fuel rod patterns configuration (as defined in EC 273511) will remain bounded by the current SFP criticality analysis and acceptable to be used. The methodology and modeling assumptions used in the evaluation are consistent with the approved current SFP criticality analysis. Therefore, the current SFP criticality analysis continues to remain valid. Use of 8, 24 and 40 IFBA fuel rod patterns configuration for the SFP criticality analysis does not affect any other FSAR described analyses and thus the consequences of the FSAR events remain unchanged.

Conclusion: The implementation of the proposed fresh fuel assemblies with 8, 24 and 40 IFBA fuel rod patterns configuration in the PBNP SFP is acceptable. This activity does not require prior NRC approval and does not involve a change to the Technical Specifications. This activity does not require a change to the PBNP FSAR. Use of 8, 24 and 40 IFBA fuel rod patterns for IFBA credit will not impact compliance with 10 CFR 50.68 (Evaluation 2011-007).

Modification: Unit 2 Main Generator Circuit Breaker Addition

Activity Description: This design change adds a new main generator circuit breaker in the 19kV isolated phase bus duct between the main generator 2-TG01, the main power transformer 2X-01 and unit auxiliary transformer 2X-02 (UAT). This change will permanently disable the 4kV automatic bus transfer for the 2A-01 and 2A-02 buses. To accommodate this change, the protective relaying for the main generator 2-TG01, main power transformer 2X-01, the isolated phase bus duct and 2X-02 is being revised to provide overlapping generator and transformer zones of protection.

This configuration, in conjunction with the 2X-04 tap change provided by EC 11696, allows the 345kV system voltage requirement to be reduced to between 343 kV and 360 kV to allow for greater flexibility and reliability of the safety related 4.16 kV and 480V buses. This resolves the commitments made by PBNP to modify its auxiliary power system to address bolted fault concerns and electrical short circuit current in excess of maximum interruption/withstand ratings of equipment.

Summary of 10 CFR 50.59 Evaluation: The addition of the 19kV main generator breaker 2-G52-TGO1 in conjunction with disabling the 4kV automatic bus transfer for the 2A-01 and 2A-02 buses:

- Does not result in more than a minimal increase in the frequency of occurrence of any accident previously evaluated in the CLB.
- Does not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety previously evaluated in the CLB.
- Does not introduce the possibility of a change in the consequences of an accident because the activity.
- Does not affect any radiological barriers or the radiological consequences of any accidents or any malfunction of an SSC important to safety previously evaluated in the CLB.
- Does not introduce the possibility of an accident of a different type than is already analyzed in the CLB.
- Does not introduce a malfunction that is not bounded by those described in the accident analysis in Chapter 14 of the FSAR.
- Does not result in a design basis limit for a fission product barrier as described in the FSAR being exceeded or altered.
- Does not affect any method of evaluation described in the CLB and used in establishing the design basis or in the safety analysis.

Conclusion: The proposed activity is consistent with current design standards for the operating conditions, will not create new or different failure modes than those previously analyzed and will not result in a significant increase in the probability of failures or the occurrence of accidents as analyzed in the FSAR. No activity requiring prior NRC approval per 10 CFR 50.59 was identified and no Technical Specification change is involved. This activity may be implemented in accordance with applicable procedures (Evaluation 2008-017).

Commitment Change Evaluations

Excellence Plan OP-10-011.5.A from NRC IP 95003: The original Confirmatory Action Letter (CAL) commitment required a process for site leadership to review completed self-assessments. The change cancels the CAL commitment.

Justification for Change: NextEra Energy Point Beach, LLC has detailed self-assessment processes and procedures. The procedures provide expectations and conduct for required users of the process. There have not been self-assessment concerns documented in NRC inspections since the closure of the CAL in 2006 (CCE 2011-001).

Excellence Plan OP-10-010 from NRC IP 95003: The original CAL commitment required a procedure for new external operating experience (OE) that specifies roles and responsibilities and details of the OE program and process; a procedure on the acquisition and expectations for use of OE; to eliminate the use of two different databases for the tracking of OE; and to implement a new electronic method for access of OE for Maintenance pre-job briefs. The change cancels the CAL commitment.

Justification for Change: NextEra Energy Point Beach, LLC has detailed OE processes and procedures and are kept up-to-date with industry changes. The CAL commitments were to fix procedure and policy weaknesses/gaps. There have not been significant issues with OE since the closure of the CAL in 2006 (CCE 2011-002).