Progress Energy

SERIAL: HNP-06-127
10 CFR 50.59(d)(2)

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

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
REPORT OF CHANGES PURSUANT TO 10 CFR 50.59

Ladies and Gentlemen:

In accordance with 10 CFR 50.59(d)(2), Carolina Power & Light Company (doing business as Progress Energy Carolinas, Inc.) submits the attached report for the Harris Nuclear Plant (HNP). The report provides a brief description of changes to the facility and a summary of the evaluations required per 10 CFR 50.59 for those items, regardless of implementation status, between January 1, 2005 and September 15, 2006.

This letter also informs the NRC that there have been no unreported changes in commitment made during the period from January 1, 2005 through September 15, 2006.

This letter contains no new regulatory commitments. Please contact me if you have any questions regarding this submittal at (919) 362-3137.

Sincerely,

D. H. Corlett
Supervisor, Licensing/Regulatory Programs
Harris Nuclear Plant

DHC/khv

Attachment: 1. 10 CFR 50.59(d)(2) Report of Changes, Tests or Experiments

c: Mr. P. B. O'Bryan, NRC Sr. Resident Inspector
Mr. C. P. Patel, NRC Project Manager
Dr. W. D. Travers, NRC Regional Administrator

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10 CFR 50.59(d)(2) Report of Changes, Tests or Experiments

Log Number / Implementing Document	Description of Change	Evaluation Summary
05-0006 AP-557 (RM-*1FR-3565ASA)	Radiation monitor RM-*1FR-3565ASA detector failed check source testing and the associated FHB radiation monitors was declared inoperable for a period of greater than 30 days until maintenance was performed.	The function of this radiation monitors is to generate an isolation signal for the Fuel Handling Building (FHB) normal ventilation and initiate emergency ventilation in the event of a fuel handling accident. There are eight monitors in the FHB with three detectors per monitor. Technical Specifications state that a channel is operable when one or more detectors are operable. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
05-0169 EC 60425, Rev 1	EC 60425 is a Temporary Modification to manually isolate A and B ESCW expansion tanks and provide a means to repressurize the ESCW tanks when required. This Temporary Modification will remain in place only until a Permanent Modification (to relocate the ESCW expansion tanks to a higher elevation) can be developed and implemented.	The function of the Essential Services Chilled Water (ESCW) expansion tanks is to accommodate system volume changes, maintain positive pressure in the piping loop and provide a means of adding makeup water to the system. This Engineering Change (EC) temporarily replaces the automatic air makeup system with manual actions to repressurize the ESCW expansion tanks due to leakage past the check valves. The temporary manual actions meet requirements of NRC IN 97-78 and NEI 96-07. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
05-0497 EC 60881	EC 60881 incorporates two changes to the FSAR Chapter 15 dose analyses. The first change accounts for the ± 10% range around the nominal 4000 cfm allowed by TS 4.7.6.d for Control Room recirculation in the AST dose analysis. This change resulted in a slightly increase in the DBA LOCA event dose consequences for the control room. The second change revises the AST dose analysis to provide a means to account for potential HHSI miniflow leakage back to the RWST against the 1.5 gpm "total effective" back leakage limit.	The first change, which accounts for the ± 10% range around the nominal 4000 cfm allowed by TS 4.7.6.d for Control Room recirculation in the Alternate Source Term (AST) dose analysis using the assumption of linear effects between dose and recirculation flow, is considered to be a change in methodology. The dose consequences were evaluated to be not more than minimal per NEI 96-07 and the linear assumption methodology is not a departure from approved methodology since it yields conservative results. The second change, which accounts for High Head Safety Injection (HHSI) miniflow leakage to the Refueling Water Storage Tank (RWST) did not "screen in" per the criteria in 10 CFR 50.59. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.

10 CFR 50.59(d)(2) Report of Changes, Tests or Experiments

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REG 177833 EC 62463	EC 62463 is an updated evaluation of the potential impacts on control room habitability from accidental releases of hazardous chemicals at or near the HNP facility as of 2005. The evaluation was performed in accordance with Regulatory Guide 1.78, Revision 1, and is based on information and data available as of December 2005. Although no new impacts were found, the EC recommends changes to the FSAR text on hazardous chemical accidents, and recommends changing the HNP commitments to Regulatory Guides 1.78 and 1.95.	The change in FSAR Section 1.8 to commit to Regulatory Guide (RG) 1.78, Rev. 1, which replaced RG 1.78, Rev. 0 and RG 1.95, to which HNP was previously committed, is considered to be a change to an FSAR described methodology. RG 1.78, Rev 1 is approved by the NRC and provides results for the Control Room Habitability Analysis which are essentially the same as the results obtained using RG 1.78, Rev. 0; therefore, this activity is not a departure from an FSAR-described method of evaluation. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
REG 196952 EC 48433, Rev. 3	Revision 3 of EC 48433 documents the final as-built configuration of the Spent Fuel Pool weld repair. Partial penetration welds were originally made instead of the full penetration welds required by the design. Some of the partial penetration welds were also found to have linear indications through NDE testing. Weld joint repairs using an alternative weld joint design were implemented under PCR-4443 and ESR 9501009. Less than 1% of the Fuel Pool and Transfer Canal weld length remains unrepaired due to inaccessibility.	Revision 3 to EC 48433 (Spent Fuel Pool Vendor Weld Repairs) accepts the as-built condition of a small percentage of weld without repair. The design function of the liner leakage detection system is to limit and detect leakage from the pools. The fuel pool liners are classified as non-Nuclear Safety. The fact that approximately 21 ft (<1% of the total weld length) is not being repaired is conservatively considered as an adverse affect to the design since all steps to limit leakage were not being taken. Almost 20 years of operating experience indicates leakage is consistently well within limits with slight variations in trend. There are no increasing trends in any of the detection locations. The Spent Fuel Pool leakage monitoring program is adequate to detect changes in the leakage and allow for corrective action. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.

10 CFR 50.59(d)(2) Report of Changes, Tests or Experiments

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REG 190799 AR 148143	Calculation 3-A-05-001, HNP-M/MECH-1008, and FSAR Table 6.2.1-8 were revised to evaluate the possible effects of maximizing the coating thicknesses from the current values in the containment analysis to the maximum thicknesses allowed by the Ebasco specifications.	AR 148143 revises the Containment Analysis, HNP-M/MECH-1008 and Calculation 3-A-05-001, to evaluate the possible effects of maximizing the coating thicknesses from the current values in the containment analysis to the maximum thicknesses allowed by the Ebasco specifications. This evaluation is a "case study" that considers the effect of the change in containment coating thickness on next free volume, the overall heat capacity of containment, and the ability to transfer heat from the containment atmosphere to the heat sinks. The change in these parameters based on coating thickness variations allowed by Ebasco specifications is a minute fraction of the containment values in question and cannot reasonably be determined to increase the likelihood of occurrence of a malfunction of an SSC important to safety previously evaluated in the FSAR. This activity concludes that the thickest allowable values of coatings per the Ebasco specifications have no significant effect on the containment analysis. FSAR Table 6.2.1-8 is revised to reflect this conclusion. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
REG 163247 EC 60541, Rev. 1	EC 60541 corrects the condition identified in Temporary Modification EC 60425 by installing new manual isolations valves for the ESCW expansion tanks, restoring the automatic air makeup system, and formalizing an alternate method to manually repressurize the ESCW expansion tanks in the event of an extended loss of service air.	Revision 1 to EC 60541 permanently adds a new manual action to repressurize the ECSW expansion tanks using compressed air bottles in the event of an extended loss of service air. This new manual action meets the requirements of NRC IN 97-78 and NEI 96-07. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.

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REG 176038 EC 60828, Rev. 1	EC 60828 addresses the potential for hot shorts and subsequent spurious operation of CSIP Suction Cross-connect valves 1CS-168 and 1CS-169 by locking open the MOV control power breakers for all CSIP Suction Cross-connect valves at their MCCs.	Revision 1 to EC 60828 locks open the MOV control power breakers for 1CS-168, 1CS-169, 1CS-170, and 1CS-171 with the valves in the open position. These Charging Safety Injection Pump (CSIP) Suction Cross-connect valves are normally open with no automatic functions. Their design function is to remain open to provide adequate suction to the CSIPs. This EC adds a new manual action to close the Motor Operated Valve (MOV) control power breakers before the CSIP Suction Cross-connect valves can be closed from the Control Room as needed for maintenance, leak isolation, and periodic testing. This new manual action meets the requirements of NRC IN 97-78 and NEI 96-07. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
REG 181554 OP-116.01, Rev. 11	Revision 11 to OP-116.01 adds a new manual action and evaluates maintaining operability of the RWST while aligned to the SFP Purification System.	Revision 11 to OP-116.01 allows for purification of the RWST in Modes 1-4 by maintaining the RWST operable while aligned to the Spent Fuel Pool (SFP) Purification system. This revision adds a new manual action for a dedicated operator to shut 1CT-23 to isolate the RWST from the non-seismic SFP Purification System in the event of a seismic event. This manual action meets the requirements of NRC IN 97-78 and NEI 96-07. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.

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REG 192783 EC 60257, Rev. 5	EC 60257 installs a manual transfer switch for C CSIP to facilitate realignment of power with a shorter time period, thus reducing the vulnerability to a loss of charging flow from loss of a running CSIP. This EC includes features to prevent inappropriate electrical connection of CSIPs and upgrades the fire barriers as needed for the C CSIP room.	Revision 5 to EC 60257 changes the design of the C CSIP 1C-SAB from a dual-cubicle, single-breaker arrangement (i.e. cubicles that are uniquely configured to accept only the designated breaker that is shared between the two divisions) to a design that utilizes a 6.9 kV circuit breaker for each circuit to C CSIP. Key interlocks at the breaker cubicles ensure that only one power circuit to the pump motor can be energized at any given time. This EC changes the maintenance evolution of powering the C CSIP from one where power is determinated and reterminated to connect the CSIP to the appropriate bus to one that utilizes a manual transfer switch to accomplish this function. Per EC 60257, the connection between the 6.9 kV switchgear cubicle 1B-SB-7 and the manual transfer switch, will be spliced in Box B5028-SB in the C CSIP room. EC 60257 ensures that the design and installation of the C CSIP manual transfer switch meets design and fire protection requirements and does not increase the likelihood of accident or malfunction of any component. This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.
REG 199061 FSAR 4.4.4.6.1	FSAR Section 4.4.4.6.1 was revised to clarify the requirements for the number and location of Incore Thermocouples required to meet TS 3/4.3.3.6 and the requirements of RG 1.97 and NUREG-0737.	FSAR Section 4.4.4.6.1 previously required four operable thermocouples per quadrant per train, for a total of eight thermocouples per quadrant. This doubled the number of thermocouples required by TS 3/4.3.3.6 to ensure that a radial temperature gradient could be obtained as required by RG 1.97 and NUREG-0737. FSAR Section 4.4.4.6.1 was revised to require two operable thermocouples paired so that one is near the center of the core and one is located near the perimeter, per train. This alternate method continues to meet the requirements of TS 3/4.3.3.6, RG 1.97, and NUREG-0737 by ensuring the capability to indicate radial temperature gradients across the core. This method is also consistent with Improved Technical Specifications (NUREG-1431, Rev 3). This activity does not increase the frequency, likelihood of occurrence or consequences of an accident or a malfunction of an SSC important to safety more than minimally, does not create a possibility for an accident of a different type or a malfunction with a different result, does not result in a design basis limit being exceeded or altered, and does not depart from a method of evaluation.