October 16, 2003

Mr. Dale E. Young, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing & Regulatory Programs
15760 W. Power Line Street
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT REGARDING TECHNICAL SPECIFICATION CHANGE REQUEST FOR NEW DEPARTURE FROM NUCLEATE BOILING CORRELATION (TAC NO. MB7035)

Dear Mr. Young:

The Commission has issued the enclosed Amendment No. 211 to Facility Operating License No. DPR-72 for Crystal River Unit 3 (CR-3). The amendment consists of changes to the existing Technical Specifications in response to your letter dated December 19, 2002, as supplemented May 9, June 9, July 15, July 31, and October 1, 2003.

The amendment revises the CR-3 Improved Technical Specification 2.1.1, "Reactor Core Safety Limits," which provides Departure from Nucleate Boiling (DNB) Safety Limits for CR-3. The change will permit the use of a new DNB correlation for Mark-B-HTP fuel, which is needed to utilize the Framatome ANP high thermal performance (HTP) spacer grid design. The revision incorporates the BHTP correlation that will be used during Cycle 14 operations. This correlation for Mark-B-HTP fuel ensures the safety limits that prevent damage to the fuel cladding are met.

The amendment also adds License Condition 2.C.(12) to the license that limits approval to Cycle 14 of CR-3 as described in the Safety Evaluation (SE) .

A copy of the SE is enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Brenda L. Mozafari, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures:
1. Amendment No. 211 to DPR-72
2. Safety Evaluation

cc w/encl: See next page

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cc w/encl: See next page

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FLORIDA POWER CORPORATION

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ORLANDO UTILITIES COMMISSION AND CITY OF ORLANDO

SEMINOLE ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-302

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 211
License No. DPR-72

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Florida Power Corporation, et al. (the licensees), dated December 19, 2002, as supplemented May 9, June 9, July 15, July 31, and October 1, 2003, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-72 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 211, are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

3. The license is also amended by the addition of paragraph 2.C.(12), which reads as follows:

   Florida Power Corporation shall assure that the Cycle 14 core for CR-3 is designed using the methods specified in and operated within the Core Operating Limits Report limits developed from Topical Reports BAW-10164P-A, Revision 4, and BAW-10241P, Revision 0, in addition to those methods allowed by Improved Technical Specification 5.6.2.18.

4. This license amendment is effective as of its date of issuance and shall be implemented by within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Allen G. Howe, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachments:
1. License page 5
2. Changes to the Technical Specifications

Date of Issuance: October 16, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 211

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following page of the Appendix "A" Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

Remove	Insert
2.0-1	2.0-1

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 211 TO FACILITY OPERATING LICENSE NO. DPR-72

FLORIDA POWER CORPORATION, ET AL.

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

DOCKET NO. 50-302

1.0 INTRODUCTION

By application dated December 19, 2002, as supplemented May 9, June 9, July 15, July 31, and October 1, 2003, Florida Power Corporation (FPC, or the licensee, also doing business as Progress Energy Florida, Inc.) proposed changes to the Crystal River Unit 3 (CR-3) Technical Specifications (TS). The proposed amendment would revise the CR-3 Improved Technical Specification 2.1.1, “Reactor Core Safety Limits.” The proposed change will permit the use of the BHTP correlation, which is needed to utilize the Framatome ANP high thermal performance (HTP) spacer grid design.

Throughout its operating history, CR-3 has experienced recurring fuel failures (Ref. 1). The licensee has attributed these failures to inadequate stabilization of the fuel rod by the grid to prevent fuel rod vibration. Framatome ANP developed the HTP spacer grid design to increase stabilization and reduce fuel failures. To support loading of the new Mark-B-HTP fuel assemblies into the core during the Cycle 14 reload, Framatome ANP submitted Topical Report BAW-10241(P), “BHTP DNB Correlation Applied with LYNXT,” to the NRC by letter dated December 19, 2002 (Ref. 2). This topical report defines the BHTP methodology for calculating the minimum departure from nucleate boiling (DNB) Safety Limit that is applied to the Mark-B-HTP fuel. The NRC staff reviewed BAW-10241(P) on a plant-specific basis to evaluate CR-3's Cycle 14 reload with Mark-B-HTP fuel.

The May 5, June 9, July 15, July 31, and October 1, 2003, supplemental letters contained clarifying information only and did not change the initial proposed no significant hazards consideration determination or expand the scope of the initial *Federal Register* notice (68 FR 5677).

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50 Appendix A, “General Design Criteria (GDC) for Nuclear Power Plants,” (Ref. 3) provides a list of the minimum design requirements for nuclear power plants. For example, GDC 10, “Reactor Design,” states the core and its protection systems shall be designed with appropriate margin to assure that specified acceptable fuel design limits (SAFDLs) are not exceeded during normal operation or anticipated operational occurrences.

To identify the appropriate requirements for its review, the NRC staff used Standard Review Plan (SRP) sections 4.2, "Fuel System Design," 4.3, "Nuclear Design," and 4.4, "Thermal and Hydraulic Design" (Refs. 4, 5, and 6). Each of these SRP sections provides a detailed list of potentially affected GDC requirements. The NRC staff reviewed the acceptance criteria of each of these SRP sections to ensure the licensee's amendment request was reviewed against the appropriate GDCs. For example, SRP Section 4.2 defines the acceptance criteria for the fuel system design of the core. These criteria include GDC 10, 27, and 35, which cover margin to SAFDLs, post-accident reactivity and core cooling requirements, and emergency core cooling system requirements following a loss-of-coolant accident (LOCA), respectively. Additionally, SRP 4.2 requires the NRC staff to review the licensee's amendment request to ensure the requirements of 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," continue to be met.

Section 3.1 of this report contains the NRC staff's plant-specific review of BAW-10241(P) for CR-3. The NRC staff's technical evaluation of the licensee's amendment request against the acceptance criteria in the aforementioned SRP sections is provided in Section 3.2 of this report. The NRC staff reviewed the amendment request against the applicable GDC listed in the SRP sections.

3.0 TECHNICAL EVALUATION

In determining the acceptability of FPC's amendment request, the NRC staff reviewed the following aspects of the licensee's request: 1) Framatome ANP Topical Report BAW-10241(P), 2) the licensee's determination of the minimum DNB ratio (DNBR) for CR-3 Cycle 14, and 3) the results of the DNB limiting transients. The NRC staff's review focused on the results the licensee obtained and used to demonstrate the acceptability of the proposed changes. The NRC staff did not review the licensee's implementation of topical reports that were previously approved by the NRC staff except to assure that any limitations or conditions of use for the topical reports were satisfied.

3.1 BAW-10241(P) Technical Evaluation

Framatome ANP Topical Report BAW-10241(P) documents development of the BHTP correlation for DNB analysis of Mark-B-HTP fuel design. BAW-10241(P) states that the BHTP DNB correlation limit is 1.132 for Mark-B-HTP. FPC proposed to add the 1.132 BHTP DNB limit to its TS Safety Limits. This new correlation represents an extension of the previously approved HTP correlation, EMF-92-153(P)(A) (Ref. 7). The primary difference between the BHTP and HTP correlations is the use of the LYNXT and XCOBRA-IIIC codes, respectively, for critical heat flux (CHF) data reduction. The codes vary in their treatment of water properties. The NRC staff reviewed the BAW-10241(P) correlation on a plant-specific basis to evaluate the CR-3 Cycle 14 reload with Mark-B-HTP fuel.

3.1.1 BHTP Test Data Base Description

The BHTP correlation database consists of more than 1000 data points from numerous tests performed in a high-pressure test loop at the Columbia University Heat Transfer Research Facility. Framatome ANP varied test section characteristics to represent various fuel rod array designs that bound the 15x15 array using both uniform and non-uniform axial power shape. The radial power distribution was non-uniform for all test assemblies. HTP spacers were used

in the tests to maintain rod positions. Additionally, Framatome ANP conducted the tests on assemblies with and without intermediate flow mixers. Coolant conditions of the tests varied over the ranges provided in Table 1.1 of Ref 2. Fuel design parameters of the test assemblies varied over the ranges provided in Table 1.2 of Ref. 2.

Framatome ANP employed thermocouples to detect the occurrence of DNB in the tests. The thermocouples were located at the axial positions listed in Table 3.5 of Ref. 7. For each set of bundle test data, Framatome ANP used the LYNXT code to predict the local thermal-hydraulic conditions (mass velocity, thermodynamic quality, heat flux, and pressure) axially along the test section heated length. The predicted local conditions at the LYNXT DNBR are provided in the summary of results for the BHTP database (Ref. 8).

3.1.2 BHTP DNB Correlation Development

The correlation is an empirically derived function of the local coolant thermodynamic state and mass flux at which DNB is observed to occur in the experiment. Framatome ANP developed the base correlation from local coolant conditions at the point of DNB, as predicted from test data for the uniform axial power distribution. The local coolant conditions are calculated with the approved LYNXT computer code, BAW-10156P-A (Ref. 9). Framatome ANP modified the predicted DNB heat flux to account for the effect of non-uniform axial power distribution and fuel assembly design parameters. This aspect is the same as the formulation used in the approved HTP DNB correlation (Ref. 7).

The local conditions data, from each CHF test state-point, form the database for the BHTP CHF correlation. Framatome ANP used the following data to determine the coefficients of the BHTP CHF correlation: 1) mass velocity, 2) thermodynamic quality, 3) heat flux, 4) pressure, 5) local thermodynamic quality, and 6) axial location. Framatome ANP used a least squares fit that minimizes the deviation of predicted CHF to the measured CHF ratio (P/M) around a mean of 1.0 to calculate the coefficients. Framatome ANP re-optimized all the BHTP coefficients with the exception of those in the Fuel Design Factor term, which includes coefficients b_7 through $b_{14.}$ The BHTP correlation optimization is documented in the Framatome ANP calculation file supporting topical report BAW-10241(P).

Framatome ANP used the BHTP DNB correlation within the following procedures to analyze the CR-3 Cycle 14 reload: 1) calculation of local coolant conditions as a function of radial and axial position within the assembly using the LYNXT subchannel model, 2) calculation of the DNB heat flux at each position within the assembly using the local coolant conditions determined in step 1 (except in the case when the local quality was computed to be less than the lower limit of -0.130, where the licensee set the local quality to the lower limit of -0.130), and 3) determination of the DNBR. The DNBR is calculated as the ratio of predicted DNB heat flux to operating heat flux at each position within the assembly. The minimum DNBR is the lowest value of the DNBR to occur in the assembly. The minimum DNBR is then used as a measure of the margin to DNB for the operating assembly.

3.1.3 Qualification of the BHTP DNB Correlation

Framatome ANP used the approved LYNXT computer code to predict DNB heat fluxes that could be compared against the measured heat fluxes. Framatome ANP measured the inlet

temperature, inlet mass flux, exit pressure, and bundle power at the point of DNB. It used each of these key variables as bounding conditions in the LYNXT calculations.

Comparison of the predicted location of DNB to the heated rod and thermocouple number at which the primary DNB indication was recorded indicated the adequacy of the model. Framatome ANP plotted the predicted over measured (P/M) heat fluxes for all tests. The P/M heat fluxes indicated the degree of agreement between the prediction using the BHTP correlation and the measured data. The plots showed good agreement in over 80 percent of the tests. For the remaining cases, nearly all the data fell within the 95 percent probability, 95 percent confidence (95/95) tolerance limits.

Framatome ANP used the frequency distribution of P/M ratios for the entire database to determine the 95/95 safety limit for the HTP correlation using a distribution free method, the same method it had used to determine the HTP DNB correlation limit.

3.2 CR-3 Cycle 14 Analysis

At the NRC staff's request, on May 9, 2003, the licensee submitted a detailed summary of the methodology and results used to calculate the minimum Cycle 14 DNB limit. The licensee's analysis used the proposed Mark-B-HTP TS DNB Safety Limit, from BAW-10241(P), as the starting point for the determination of the minimum DNBR for Cycle 14. The licensee added conservative margins based on its Statistical Core Design Methodology, BAW-10187P-A (Ref. 10) and a transition core penalty. BAW-10187P-A describes the methodology for determining the Statistical Design Limit (SDL). The SDL is equivalent to the minimum DNBR predicted by the new Mark-B-HTP DNB correlation with all appropriate statistical uncertainties included. The result is a higher minimum DNBR based on the statistical uncertainties at CR-3.

Additionally, the licensee used BAW-10179P-A, "Safety Criteria and Methodology for Acceptable Cycle Reload Analysis," Rev. 4 (Ref. 11). Using the SDL, the described margins, and the NRC-approved methodology (BAW-10179P-A), the licensee was able to calculate an appropriately conservative Thermal Design Limit (TDL). To demonstrate the acceptability of this calculated TDL, the licensee compared the Cycle 14-specific Safety Limit line to those of the proposed TS Safety Limit and the Cycle 13-specific Safety Limit line. The results show that the Cycle 14 limits bound the proposed TS Safety Limits. Therefore, the NRC staff concludes that the licensee's Cycle 14 operating conditions will not violate the proposed TS during normal operations. Additionally, the licensee will calculate the TDL for subsequent cycles using BAW-10179P-A and confirm the TS Safety Limit will not be violated.

After determining the Cycle 14 minimum DNBR, the licensee evaluated the DNB limiting transients to verify none would violate the cycle limit. The licensee determined the effects that the loading of the Mark-B-HTP fuel would have on core parameters that affect the margin to DNB. These included a slight reduction in the predicted reactor coolant system flow rate, a slight increase in the core bypass flow fraction, and a slight increase in the core pressure drop. The licensee attributed these changes to the increased hydraulic resistance of the Mark-B-HTP fuel design when compared to the Mark-B10 fuel design currently used at CR-3. The licensee evaluated each of the DNB limiting transients relative to the event initiators, acceptance criteria, and event termination to determine whether the described changes in flow and pressure drop would affect the reactor coolant system response. The licensee's assessment found that the DNB limiting events from Cycle 13 would remain the limiting events for Cycle 14. The NRC

staff reviewed the analysis results for the most limiting DNB transients for each of the Condition I, II, III, and IV events. The NRC staff agrees with the licensee's assessment that considerable margin exists between the conservatively calculated Cycle 14 minimum DNBR and the results of the analyses. Additionally, the NRC staff confirmed that the limiting DNB events would not violate either safety or design limits.

In addition to analyzing the DNB limiting transients, the licensee performed the Mark-B-HTP LOCA analyses using the NRC-approved BWNT LOCA Evaluation Model (BAW-10192P-A, Rev. 0) (Ref. 12) and the methods described in the RELAP5/MOD2-B&W code (BAW-10164P-A, Rev. 4) (Ref. 13). Both the model and the code have previously been reviewed and approved by the NRC and their use in this application is acceptable to the NRC staff. The licensee varied different parameters including core configuration, axial peak elevation, burnup, poison loading, and break size to ensure the bounding conditions were identified. The licensee included a number of conservative assumptions in its analysis, including the highest grid form losses in the hot channel, maximizing core bypass flow, and minimizing core reflood rate.

Using the NRC-approved methodologies and codes as well as conservative assumptions, the licensee performed the mixed-core and whole-core LOCA analyses by iterating on Linear Heat Rate to achieve a targeted peak clad temperature (PCT) of 2000 °F +/- 50 °F range. This provides margin to the local oxidation, whole-core hydrogen generation, and maximum PCT criteria listed in 10 CFR 50.46. The NRC staff concludes that the licensee used an approved methodology and conservative assumptions in performing its LOCA analysis and, therefore, in the unlikely event of a LOCA, it will meet the requirements of 10 CFR 50.46.

Finally, at the NRC staff's request, the licensee reviewed and submitted a summary of how it complied with each of the conditions or restrictions of the NRC-approved methodologies used in its analysis for Cycle 14 operations with a mixed core of Mark-B10 and new Mark-B-HTP fuel assemblies. The licensee provided this summary in its July 15, 2003, letter. The NRC staff reviewed the licensee's justification for compliance and concludes that the licensee used each of the approved methodologies within the restrictions listed by the NRC staff in its safety evaluation.

3.3 Limitations and Conditions of BAW-10241P

In order to demonstrate a plant-specific acceptability of BAW-10241(P) for CR-3, the licensee provided additional information by a letter dated October 1, 2003, which showed it met all of the limitations and conditions requested by the NRC staff to provide reasonable assurance of safety. The following is a list of the conditions and limitations and a summary of the licensee's response to each.

1. Based on the data in Ref. 8, the application of the BHTP correlation for DNB analysis is restricted to the operating conditions given in Table 1.

   Table 1: Range of Coolant Conditions for BHTP Correlation (Table 1.1 from Ref. 2)

Pressure (psia)	1775 to 2425
Local Mass Flux (Mlb/hr/ft^2)	0.897 to 3.549
Inlet Enthalpy (Btu/lb)	383.9 to 644.3
Local Quality	-0.130 to 0.344

Response: The licensee stated that the BHTP correlation range of applicability, as listed in Table 1, was used to establish the DNB-based operational and safety limits. Additionally, FPC stated that in almost all cases it evaluated, the limiting hot pin/hot subchannel local conditions for CR-3 Cycle 14 fall within the applicability range of conditions. Finally, for any operating conditions where local conditions fell outside the range, the licensee took conservative actions as described in its response to condition five (discussed below).

2. Based on the data in Ref. 7, the BHTP DNB correlation is applicable to fuels whose design characteristics fall within the correlation database in Table 2.

Table 2: Range of Fuel Design Parameters for BHTP Correlation (Table 1.2 from Ref. 2)

Fuel Rod Diameter, in.	0.360 to 0.440
Fuel Rod Pitch, in.	0.496 to 0.580
Axial Spacer Span, in.	10.5 to 26.2
Hydraulic Diameter, in.	0.4571 to 0.5334
Heated Length, ft	9.8 to 14.0

Response: The licensee stated that the Mark-B-HTP fuel design, scheduled for use in CR-3 Cycle 14, has geometry characteristics that fall with the applicability ranges of Table 2.

3. The BHTP correlation limit is determined to be as stated in the subject topical report (Ref. 2).

Response: The licensee stated that the 95/95 DNB safety limit for the BHTP correlation, as described in Ref. 2, is the same limit being incorporated into TS Section 2.1.1.2 of the CR-3 license. Additionally, the licensee stated that the reload licensing analyses supporting the Mark-B-HTP fuel design for Cycle 14 used the BHTP correlation design limit of 1.132.

4. A DNB penalty relative to DNB prediction for a full core of Mark-B-HTP fuel during transition core application shall be included in the plant-specific application.

Response: The licensee stated that it incorporated a transition core DNB penalty into its reload analyses for CR-3 Cycle 14. FPC based the penalty on the fuel assembly designs in the core and the core loading pattern. The licensee incorporated the penalty into the TDL to determine the cycle-specific DNB limit. The licensee described the methodology used to calculate the DNB penalty in its May 9, 2003, letter.

5. Actions for analyzing the operating conditions outside the approved ranges shall be reviewed separately.

Response: In the May 9, 2003, letter, the licensee provided additional information that stated that CR-3 Cycle 14 operation will be within the BAW-10241(P) Table 1.1 ranges for all coolant conditions, except the lower limit on local quality. FPC stated that the local quality will be below the limit listed in Table 1.1 in the lower portions of the core; however, this is only a concern during transients involving a highly inlet-skewed axial

power shape and not during normal operations. The manner in which the licensee treats operation below the minimum quality limit is conservative and is, therefore, acceptable.

In Ref. 8, Framatome ANP stated that treatment of operating conditions outside the ranges in Table 1.1 would be acceptable. Framatome ANP based this conclusion on the use of EMF-92-153(P), Addendum 1 (Ref. 14). The addendum describes a methodology for treatment of parameters that fall outside the ranges in Table 1.1. The NRC staff reviewed the addendum for specific application to local qualities below the Table 1.1 lower limit at CR-3 during Cycle 14. Although the addendum implies that application of its methodology to other parameters outside their Table 1.1 limits is acceptable, the NRC staff has neither reviewed nor approved the application of the addendum for those circumstances. Therefore, the NRC staff's review and approval of the addendum is limited to the treatment of local quality values less than the Table 1.1 lower limit for CR-3 Cycle 14.

On October, 7, 2003, NRC staff traveled to the Framatome ANP headquarters in Lynchburg, Virginia to attend a meeting regarding the CR-3 Cycle 14 reload. During the meeting, Framatome ANP representatives supplied the NRC staff with additional information that demonstrates that its treatment of local quality conditions outside the limits in BAW-10241(P) is conservative and acceptable. The NRC staff summarized the meeting in a trip report dated October 9, 2003. This trip report contains additional information that demonstrates the methodology employed by Framatome ANP for treatment of local qualities that are beyond the BHTP correlation limits is conservative. Additionally, the report contains information presented by Framatome ANP that quantitatively shows the penalties imposed on CR-3 Cycle 14 operations because of this methodology.

The NRC staff reviewed the applicability of BAW-10241(P) to the CR-3 Cycle 14 reload and found that operation below the lower limit on local quality is acceptable for the following reasons:

A. The licensee reevaluated the minimum DNBR for the DNB limiting transients, one-pump and 4-pump coastdown, using the bounded core conditions of heat flux, pressure, and mass flux. However, the licensee's transient analysis assumed a local quality value equal to the correlation lower limit (-0.130) for regions of the core where the calculated local quality was more negative than the lower limit. The licensee followed the methodology described in EMF-92-153(P), Addendum 1 for these conditions. Calculation of a minimum DNBR using a higher quality than is actually present in the core results in a conservative prediction of the margin to DNB for this transient; and

B. FPC stated that the minimum DNBR for the four-pump coastdown transient is 1.76. This is higher than the DNB TDL of 1.65 for CR-3 Cycle 14. The four-pump coastdown transient is the DNB-limiting event for CR-3.

In order to complete its review of the licensee's amendment request, the NRC staff reviewed Framatome ANP Topical Report BAW-10241(P). The NRC staff's review of the topical was limited to its application to CR-3 Cycle 14 operations. The NRC staff's review and approval of BAW-10241(P) for CR-3 Cycle 14 is not intended to grant its generic application to other licensees. Additionally, the NRC staff's review of EMF-92-153(P), Addendum 1, was limited to

the treatment of local qualities below the limits in Table 1.1 for CR-3 Cycle 14. Likewise, the NRC staff's review and approval of EMF-92-153(P), Addendum 1 for CR-3 Cycle 14 is not intended to grant generic approval for its use under other circumstances or for other licensees. The NRC staff's generic review of BAW-10241(P) and EMF-92-153(P), Addendum 1 will continue and the results of that review will be documented in a separate safety evaluation.

The licensee provided a license condition in a supplemental letter dated October 1, 2003, that commits to the addition of paragraph 2.C.(12), which reads as follows:

> Florida Power Corporation shall assure that the Cycle 14 core for CR-3 is designed using the methods specified in and operated within the Core Operating Limits Report limits developed from Topical Reports BAW-10164P-A, Revision 4, and BAW-10241P, Revision 0, in addition to those methods allowed by Improved Technical Specification 5.6.2.18.

Regarding CR-3, the NRC staff reviewed the effects of the proposed changes using the appropriate requirements of GDC 10, SRP sections 4.2, 4.3, and 4.4, and 10 CFR 50.46. The NRC staff found that the licensee's amendment request, with the addition of the license condition, provided reasonable assurance that under both normal and accident conditions the licensee would be able to safely operate the plant and comply with the NRC regulations. Therefore, the NRC staff finds the licensee's amendment request acceptable.

4.0 STATE CONSULTATION

Based upon a letter dated May 2, 2003, from Michael N. Stephens of the Florida Department of Health, Bureau of Radiation Control, to Brenda L. Mozafari, Senior Project Manager, U.S. Nuclear Regulatory Commission, the State of Florida does not desire notification of issuance of license amendments.

5.0 ENVIRONMENTAL CONSIDERATIONS

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (68 FR 5677). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The NRC staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. L.A. Martin (Progress Energy) slide presentation "Crystal River 3 Cycle 14 Mark-B-HTP Design, given October 3, 2002, ADAMS Accession No. ML032340703.

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