UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 10, 2009

Mr. Jon A. Franke, 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 NUCLEAR GENERATING PLANT - ISSUANCE OF AMENDMENT REGARDING REQUEST TO REVISE THE TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS FOR EMERGENCY DIESEL GENERATOR VOLTAGE AND FREQUENCY LIMITS (TAC NO. ME0107)

Dear Mr. Franke:

The Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 236 to Facility Operating License No. DPR-72 for Crystal River, Unit 3 (CR-3) in response to your application dated November 6, 2008, as superseded by letters dated August 4, and December 4, 2009. The amendment modifies the CR-3's Technical Specifications Surveillance Requirements (SRs) related to allowable voltage and frequency limits for the emergency diesel generator (EDG) testing. Specifically, the licensee proposed to modify the CR-3 SRs 3.8.1.2, 3.8.1.6, 3.8.1.10.c.3 and 3.8.1.10.c.4 to restrict the voltage and frequency limits for both slow and fast EDG starts.

A copy of the safety evaluation is enclosed. The notice of issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

Farideh E. Saba

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures:
1. Amendment No. 236 to Facility Operating License No. DPR-72
2. Safety Evaluation

cc w/enclosures: Distribution via ListServ

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

FLORIDA POWER CORPORATION

CITY OF ALACHUA

CITY OF BUSHNELL

CITY OF GAINESVILLE

CITY OF KISSIMMEE

CITY OF LEESBURG

CITY OF NEW SMYRNA BEACH AND UTILITIES COMMISSION,

CITY OF NEW SMYRNA BEACH

CITY OF OCALA

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. 236
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 (the licensees), dated November 6, 2008, as superseded by letters dated August 4, and December 4, 2009, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the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 Title 10 of the *Code of Federal Regulations* (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. 236, are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas H. Boyce, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Operating License
and Technical Specifications

Date of Issuance: December 10, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 236

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following page 4 of Facility Operating License DPR-72 with the attached revised page 4.

Replace the following pages of the Appendix "A" Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove	Insert
3.8-5	3.8-5
3.8-7	3.8-7
3.8-9	3.8-9

of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

2.C.(1) Maximum Power Level

Florida Power Corporation is authorized to operate the facility at a steady state reactor core power level not in excess of 2609 Megawatts (100 percent of rated core power level).

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 236 , are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

The Surveillance Requirements contained in the Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment 149. The Surveillance Requirements shall be successfully demonstrated prior to the time and condition specified below for each.

a) SR 3.3.8.2.b shall be successfully demonstrated prior to entering MODE 4 on the first plant start-up following Refuel Outage 9.

b) SR 3.3.11.2, Function 2, shall be successfully demonstrated no later than 31 days following the implementation date of the ITS.

c) SR 3.3.17.1, Functions 1, 2, 6, 10, 14, & 17 shall be successfully demonstrated no later than 31 days following the implementation date of the ITS.

d) SR 3.3.17.2, Function 10 shall be successfully demonstrated prior to entering MODE 3 on the first plant start-up following Refuel Outage 9.

e) SR 3.6.1.2 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.

f) SR 3.7.12.2 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.

g) SR 3.8.1.10 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.

h) SR 3.8.3.3 shall be successfully demonstrated prior to entering MODE 4 on the first plant start-up following Refuel Outage 9.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each required offsite circuit.	7 days
SR 3.8.1.2	----------NOTES---------- 1. Performance of SR 3.8.1.6 satisfies this SR. 2. All EDG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. 3. A modified EDG start involving idling and gradual acceleration to synchronous speed may be used for this SR as recommended by the manufacturer. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.6 must be met. 4. When a modified EDG start is used, the required frequency may be obtained automatically or manually or through a combination of the two. ---------- Verify each EDG starts from standby conditions and achieves steady state voltage $\geq$ 4077 V and $\leq$ 4243 V, and frequency $\geq$ 59.4 Hz and $\leq$ 60.6 Hz.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.6	----------NOTE---------- All EDG starts may be preceded by an engine prelube period. ---------- Verify each EDG starts from standby condition and achieves: a. in ≤ 10 seconds voltage ≥ 3744 V and frequency ≥ 58.8 Hz, and b. steady state voltage ≥ 4077 V and ≤ 4243 V and steady state frequency ≥ 59.4 Hz and ≤ 60.6 Hz	184 days
SR 3.8.1.7	Verify manual transfer of AC power sources from the normal offsite circuit to the alternate offsite circuit.	24 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.10	----------NOTES---------- 1. All EDG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODES 1, 2 or 3. However, credit may be taken for unplanned events that satisfy this SR. 3. Only required to be performed prior to entry into MODE 3. ----------	
	Verify on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ES actuation signal: a. De-energization of emergency buses; b. Load shedding from emergency buses; c. EDG auto-starts from standby condition and: 1. energizes permanently connected loads in ≤ 10 seconds, 2. energizes auto-connected emergency loads through load sequencing relays, 3. achieves steady-state voltage ≥ 4077 V and ≤ 4243 V, 4. achieves steady-state frequency ≥ 59.4 Hz and ≤ 60.6 Hz, and 5. supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes.	24 months

(continued)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 236 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

The Nuclear Regulatory Commission (Commission, NRC) has issued the enclosed Amendment No. 236 to Facility Operating License No. DPR-72 for Crystal River, Unit 3 (CR-3) in response to your application dated November 6, 2008 (Agencywide Documents Access Management System (ADAMS) Accession Number ML083170324), as superseded by letters dated August 4, 2009 (ADAMS Accession Number ML092170753), and December 4, 2009. The amendment modifies the CR 3's Technical Specifications (TS) Surveillance Requirements (SRs) related to allowable voltage and frequency limits for the emergency diesel generator (EDG) testing. Specifically, the licensee proposed to modify the CR-3 TS SRs 3.8.1.2, 3.8.1.6, 3.8.1.10.c.3 and 3.8.1.10.c.4 to restrict the voltage and frequency limits for both slow and fast EDG starts.

The NRC staff's proposed no significant hazards consideration determination was published in the *Federal Register* on September 8, 2009 (74 FR 46242).

2.0 REGULATORY EVALUATION

The NRC staff used the following regulatory requirements and regulatory guidance to evaluate the application.

CR-3 was licensed in accordance with the draft General Design Criteria (GDC) published for comment in the *Federal Register* on July 11, 1967 by U.S. Atomic Energy Commission (AEC). Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50 contains the updated NRC GDC. In general, however, CR-3 is required to adhere to the draft GDC contained in Section 1.4 of the Final Safety Analysis Report (FSAR).

GDC 17, "Electric power systems," of Appendix A to 10 CFR Part 50 requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two

physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18, "Inspection and testing of electric power systems," of Appendix A to 10 CFR Part 50 requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

AEC Criterion 24, "Emergency Power for Protection Systems," states that in the event of loss of all offsite power, sufficient alternate sources of power shall be provided to permit the required functioning of the protection systems.

AEC Criterion 39, "Emergency Power for Engineered Safety Features," states that alternate power systems shall be provided and designed with adequate independency, redundancy, capacity, and testability to permit the functioning required of the engineered safety features. As a minimum, the onsite power system and the offsite power system shall each, independently, provide this capacity assuming a failure of a single active component in each power system.

Section 50.36, "Technical Specifications," of 10 CFR states that each license authorizing operation of a production or utilization facility of a type described in Sections 50.21 or 50.22 will include technical specifications. The technical specifications incorporated in a license will be designed to include those significant design features, operating procedures and operating limitations which are considered important in providing reasonable assurance that the facility will be constructed and operated without undue hazard to public health and safety.

NRC Regulatory Guide (RG) 1.9, Revision 3, dated July 1993, "Selection, Design, Qualification and Testing of Emergency Diesel Generators used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants," describes a method acceptable to the NRC staff for complying with the Commission's regulations with regard to design and testing of onsite EDG. The NRC staff recognizes that the licensee has used RG 1.9 Revision 3 as a guidance document. However, requirements for EDG slow starts were clarified in RG 1.9 Revision 4, dated March 2007, and the NRC staff has considered some pertinent sections of this revision where no guidance was previously available.

3.0 TECHNICAL EVALUATION

The existing onsite power system consists of two Fairbanks Morse EDGs at CR-3 plant. According to the CR-3 FSAR, each generator is nameplate rated for 3750 kilo Volt Amps (kVA) at 0.8 power factor (PF) (3000 kilo Watts (kW)). This rating has been extended to 4083 kVA at 0.857 PF (3500 kW) with the following power restrictions:

1. 0 - 2850 kW – continuous (PF 0.766)
2. 2851 - 3200 kW - cumulative 2000-hour rating (PF 0.819).
3. 3201 - 3400 kW - cumulative 200-hour rating (PF 0.845).
4. 3401 - 3500 kW - cumulative 30-minute rating (PF 0.766).

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment, which is described in Attachment A of the license amendment request (LAR), dated August 4, 2009.

The CR-3 FSAR states that EDG steady state auto-connected load is within the 2000-hour rating during the worst case loading scenario. The worst case EDG loading scenario is a LOOP coincident with an ES actuation resulting from the worst case design basis event and failure of the other EDG to start. The worst case EDG steady state auto-connected load including momentary short duration loading is less than the upper limit of the 200-hour rating.

Any variation in voltage and/or frequency affects the operating characteristics of motor driven loads. If variation in both voltage and frequency occur simultaneously, the effect will be superimposed and compounded such that the available margin in EDG capacity may be eroded. In the LAR, the licensee has proposed to tighten the existing allowable range of frequency and voltage for the acceptance criteria during EDG surveillance testing to avoid the potential for overloading the EDGs and to reduce the potential operation of safe shutdown equipment above the nameplate rating.

The licensee in its letter dated August 4, 2009, stated that the proposed change would revise the CR-3 Improved Technical Specification (ITS) SRs as follows:

- SR 3.8.1.2 is being revised to verify that on a slow start from standby conditions, the EDG will come up to a voltage ≥ 4077 Volt (V) and ≤ 4243 V. The frequency will also be revised to 60 plus or minus 1 percent Hertz (Hz) as this SR verifies that the EDG will start in slow speed and eventually reach steady state conditions for voltage and frequency. This SR does not reflect plant response to accident conditions. A new note will be added to the SR that states that when a modified start is used, the required frequency may be obtained automatically, manually, or through a combination of the two.

- SR 3.8.1.6 is being revised to verify that each EDG starts from a standby condition and achieves, a) in ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz, and b) steady state voltage ≥ 4077 V and ≤ 4243 V, and steady state frequency ≥ 59.4 Hz and ≤ 60.6 Hz.

- SR 3.8.1.10.c.3 is being revised to verify that on an actual or simulated loss of offsite power (LOOP) signal, in conjunction with an actual or simulated engineered safeguard (ES) actuation signal, the EDG auto-starts from a standby condition and achieves steady-state voltage ≥ 4077 V and ≤ 4243 V.

- SR 3.8.1.10.c.4 is being revised to verify that on an actual or simulated LOOP signal, in conjunction with an actual or simulated ES actuation signal, the EDG auto-starts from a standby condition and achieves steady-state frequency ≥ 59.4 Hz and ≤ 60.6 Hz.

The LAR proposes more restrictive steady state voltage and frequency limits for the EDGs. The allowable voltage range is revised to within plus or minus 2 percent of the nominal safety-related bus voltage of 4160V. The frequency range is revised to plus or minus 1 percent tolerance band around the nominal frequency of 60 Hz for all starts of the EDGs.

The licensee evaluated the consequences of EDG operation at the extremes of the proposed ITS frequency limits on safe shutdown equipment. The licensee stated in its August 4, 2009, letter that:

- Increased brake horsepower from a 1 percent frequency increase was evaluated against the motor nameplate rating and the service factor horsepower rating. The licensee verified that all safe-shutdown related motors were found acceptable. The licensee also stated that the Building Spray pumps and the electric motor driven emergency feedwater pump may operate above the nameplate service factor rating which may lead to a slight decrease in the qualified life of the motor. The licensee performed an aging analysis calculation that supported the above conclusion.

- The increase in locked rotor amps resulting from a 1 percent decrease in EDG frequency was evaluated for its effect on safety-related motor control centers (motor feeder breaker magnetic only settings) and switchgear (motor feeder breaker instantaneous trip device settings). The licensee stated in the LAR that these settings were found acceptable.

The licensee has verified that no safety-related motor operated valves would exceed their maximum allowed stroke time if the EDG frequency was reduced by 1 percent which would cause the valve to open slower. The evaluation also demonstrated that an increase in frequency, as an impact on available kW, would not prevent the EDG or the required ES components from performing their required safety function.

In the LAR, the licensee stated that the consequences of operating the EDG at the extremes of the proposed ITS frequency limits were evaluated for impact on EDG loading. The licensee's conclusion is that the increase or decrease in speed for a 1 percent change in frequency is well within the ITS speed limits and will not adversely impact the EDG itself. The licensee provided a tabulation of EDG loading under various postulated scenarios, including manual loading as required. In its letter dated August 4, 2009, the licensee has documented the following conclusions:

1. For accident scenarios, the EDG loading is less than the TS basis and SR 3.8.1.11 lower limit of 3300 kW as well as less than the upper limit of 3400 kW of the EDG 200-hour rating.

2. For non-accident scenarios, including fire scenarios discussed in 10 CFR Appendix R, where the fire is not in the control room, the loading is applied manually from the control room and the loading is less than the manual loading limit of 3375 kW (EDG 200-hour rating upper limit of 3400 kW - 25 kW uncertainty of the control board kW meter).

3. For an Appendix R fire in the control room, requiring shutdown from outside the control room, the EDG 200-hour rating upper limit of 3400 kW is used because there is no kW meter at the remote shutdown (RSD) panel that the operator can use for load management. For this scenario, the licensee has performed a plant specific calculation that has analytically demonstrated that subsequent to transferring the control over to the RSD Panel when the operator applies loads, the loading remains below the EDG 200-hour rating limit of 3400 kW.

The licensee has performed analyses to demonstrate the EDG loading capability to support plant shutdown with reduced margins between EDG short term rating and maximum postulated loading. The NRC staff finds the licensee's evaluation of the EDG loading under postulated scenarios and the conclusions, reasonable and acceptable.

The NRC staff did not evaluate manual actions and any procedural requirements associated with plant shutdown or coping methods dictated by other regulatory requirements. The NRC staff did not evaluate the manual actions and capability to monitor EDG loading during postulated events that require control room evacuation. The licensee has stated that analytical studies for proposed loads ensure that EDG will not be overloaded for control room fire events.

The licensee provided clarification during a phone call and by letter dated December 4, 2009 stating that: "The only credited manual action that would occur before evacuating the CR-3 Main Control Room due to a fire, is tripping the reactor. This manual action is contained in Abnormal Operating Procedure, AP-990, 'Shutdown From Outside the Control Room.' Operator manual actions are taken outside the Control Room to ensure the EDGs will not be overloaded." The NRC staff finds this response acceptable.

The NRC staff reviewed the licensee's evaluations for impact of frequency variations on safe shutdown equipment as described in the submittal dated August 4, 2009 and summarized above. The NRC staff finds the conclusions reasonable and acceptable

The NRC staff evaluation of the licensee proposed changes the CR-3 SR follows:

SR 3.8.1.2 – This SR will be revised to verify each EDG starts from standby conditions and achieves steady state voltage ≥ 4077 and < 4243 V, and frequency ≥ 59.4 and < 60.6 Hz. A new Note 4 will be added to this SR that states that when a modified start is used, the required frequency may be obtained automatically, manually, or through a combination of the two.

The proposed allowable voltage and frequency range is applicable for monthly surveillance test performed with a slow start. The licensee stated, in the attachment to the amendment request Revision 1, that the frequency limits are based on the licensee's engineering evaluation and plant specific calculations. Also, Note 4 is added to ensure that the frequency will be verified to be within the limit for the modified start.

The guidance for the EDG slow starts was clarified in RG 1.9, Revision 4. Section 2.2.2 of this RG, supplements the Slow-Start Test clause 7.5.1 of The Institute of Electrical and Electronics Engineers Standard (IEEE Std.) 387-1995 as follows:

> This test involves demonstrating proper startup from standby conditions, and verifies that the required design voltage and frequency are attained. For this test, the EDG can be slow-started and reach rated speed on a prescribed schedule to minimize stress and wear.

Based on the review of the licensee's proposal to verify that the EDG will operate within the evaluated voltage and frequency limits following a slow start, the NRC staff finds this change acceptable and consistent with the guidance in RG 1.9, Revision 4.

SR 3.8.1.6 - This will be revised to verify each EDG starts from standby condition and achieves: a) in < 10 seconds, voltage > 3744 V and frequency > 58.8 Hz and b) steady state voltage > 4077 V and < 4243 V, and steady state frequency > 59.4 and < 60.6 Hz.

The guidance for the EDG fast starts was clarified in RG 1.9, Revision 4. Section 2.3.2.2 of this RG supplements the starting test clause 7.2.1.1 of IEEE Std. 387-1995 as follows:

> This test will verify that the EDG reaches the required minimum voltage and frequency within acceptable time and then EDG achieves steady state voltage and frequency within the required limits.

The proposed minimum voltage and frequency limits for a fast start, 90 percent of nominal, are considered adequate for starting the first load on the EDG within 10 seconds. The voltage and frequency are expected to reach the steady state values when all the loads have been sequenced on. The licensee evaluated the worst case loading of the EDG at steady state conditions with voltage and frequency at extremes of the allowable limit. The licensee has concluded that EDG operation at the limits does not adversely impact the operating loads and does not exceed the EDG 200-hour rating. Based on these evaluations, the NRC staff finds the proposed limits for EDG starting and steady state operation are consistent the guidance in Section 2.3.2.2 of RG 1.4, Revision 4 and acceptable.

SR 3.8.1.10.c.3 – This SR will be revised to verify on an actual or simulated LOOP signal in conjunction with an actual or simulated ES actuation signal: the EDG auto-starts from standby condition and achieve steady-state voltage > 4077 and < 4243 V.

SR 3.8.1.10.c.4 – This SR will be revised to verify on an actual or simulated LOOP signal in conjunction with an actual or simulated ES actuation signal, the EDG auto-starts from standby condition and achieve steady-state frequency > 59.4 and < 60.6 Hz.

RG 1.9, Revision 4, Section 2.2.6 for combined safety injection actuation system (SIAS) and LOOP supplements the clause 7.5.6 of IEEE Std. 387-1995 as follows:

> This test involves demonstrating that EDG can satisfactorily respond to a LOOP in conjunction with SIAS in whatever sequence they might occur e.g., loss-of-coolant accident (LOCA) followed by delayed LOOP or LOOP followed by LOCA. A simultaneous LOOP/LOCA event would be demonstrated by verifying that the diesel generator unit starts on the auto-start signal from its standby condition attains the frequency and voltage within acceptable limits and time, energizes the auto-connected shutdown loads through the load sequencer within the acceptable limits of pump start time, and operates for a minimum of 5 minutes.

Based on the review of the licensee's analyses that the worst case loading of the EDG, operating between 4243 V and 4077 V and at any frequency between 59.4 and 60.6 Hz does not exceed the EDG 200-hour rating, the NRC staff finds the proposed voltage and frequency limits for a LOOP/LOCA event are consistent with the guidance in Section 2.2.6 of RG 1.9, Revision 4 and acceptable.

Based on the evaluation discussed above, the NRC staff determined that the proposed amendment to the CR-3 TS is consistent with the recommendations of the NRC guidance in RG 1.9, Revision 4. The NRC staff also concludes that the proposed TS change maintains compliance with requirements in AEC Criterion 24 and AEC Criterion 39 governing the design and operation of the electrical power systems and provides adequate assurance of system operability. Therefore, the NRC staff finds the proposed changes acceptable and consistent with the NRC regulations and the regulatory guidance.

4.0 REGULATORY COMMITMENT

The licensee in the letter dated August 4, 2009, has committed to implement the following compensatory measure prior to implementing the proposed changes to the CR-3 SRs:

Commitment	Due Date
Proposed Technical Specification limits for frequency and voltage will be administratively enforced until the license amendment is implemented.	Procedures are in place and will be maintained until the license amendment is implemented

5.0 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.

6.0 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 and changes surveillance requirements. 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 (74 FR 46242; September 8, 2009). 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.

7.0 CONCLUSION

The Commission 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: G. Singh Matharu

Date: December 10, 2009

December 10, 2009

Mr. Jon A. Franke, 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 NUCLEAR GENERATING PLANT - ISSUANCE OF AMENDMENT REGARDING REQUEST TO REVISE THE TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS FOR EMERGENCY DIESEL GENERATOR VOLTAGE AND FREQUENCY LIMITS (TAC NO. ME0107)

Dear Mr. Franke:

The Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 236 to Facility Operating License No. DPR-72 for Crystal River, Unit 3 (CR-3) in response to your application dated November 6, 2008, as superseded by letters dated August 4, and December 4, 2009. The amendment modifies the CR-3's Technical Specifications Surveillance Requirements (SRs) related to allowable voltage and frequency limits for the emergency diesel generator (EDG) testing. Specifically, the licensee proposed to modify the CR-3 SRs 3.8.1.2, 3.8.1.6, 3.8.1.10.c.3 and 3.8.1.10.c.4 to restrict the voltage and frequency limits for both slow and fast EDG starts.

A copy of the safety evaluation is enclosed. The notice of issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures:
1. Amendment No. 236 to Facility Operating License No. DPR-72
2. Safety Evaluation

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