



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 106 TO FACILITY OPERATING LICENSE NO. DPR-72
FLORIDA POWER CORPORATION, ET AL.
CRYSTAL RIVER UNIT NO. 3 NUCLEAR GENERATING PLANT
DOCKET NO. 50-302

INTRODUCTION

By letter dated January 20, 1988, Florida Power Corporation (FPC or the licensee) requested an amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The proposed amendment would revise Technical Specification (TS) 3.8.1.1 to provide more appropriate actions to be taken when one of the batteries or battery chargers supplying D.C. control power to the 230 kv switchyard breakers is inoperable. It would also increase the allowable outage time for surveillance testing of the batteries within the Action Statement time interval while Units 1 and 2 (where the battery is located) are shutdown, rather than operating as is presently done. Thus, the D.C. systems would not have to be removed from service while those units are operating.

The revision to TS 4.8.1.2 would clarify the surveillance and equipment required to be operable in Modes 5 and 6, and would not result in changes from the current surveillance requirements.

EVALUATION

In the event of inoperability of one battery or charger, the present TS 3.8.1.1 requires, in effect, that one offsite power source be declared inoperable because the independence of the two offsite sources is compromised. The Action Statements require verifying breaker alignments within 1 hour and every 8 hours thereafter, starting and accelerating the diesel generators within 24 hours, and restoring the battery or charger to operable status within 72 hours or shutting down.

The proposed changes to TS 3.8.1.1 recognize that inoperability of a battery or charger does not affect the offsite power supplies. The changes require restoration of both batteries and chargers to operable status or supply of all D.C. control power from a single battery/charger combination within 8 hours, or shutting down (3.8.1.1.f.). If a single battery/charger is supplying all D.C. control power, the operability of that battery is to be demonstrated within 8 hours and every 24 hours thereafter. Both batteries and chargers are to be restored to operable status within 7 days, or the plant is to be shut down (3.8.1.1.g.).

The changes in the Action Statement by adding TS 3.8.1.1.f. and g. define more appropriate actions to be taken when one of the batteries and/or chargers is inoperable. The action and time limit in proposed TS 3.8.1.1.f. are conservative and do not significantly increase the probability of not isolating a 230 kv fault, which would cause a simultaneous loss of both offsite power sources. The probability of the loss of offsite power due to the inability to isolate a 230 kv fault is very low. Therefore, these changes are acceptable.

The requirement of proposed TS 3.8.1.1.g. to demonstrate battery operability within 8 hours is conservative and acceptable. The requirement to restore both batteries and chargers to operable status within 7 days provides adequate time to perform required surveillances without significantly increasing the risk of loss of offsite power, and is therefore acceptable.

Addition of TS 3.8.1.1.c., Limiting Condition of Operation (LCO), clarifies TS 3.8.1.1 and permits appropriate Action Statements, and is therefore acceptable.

The staff finds that the changes in TS 3.8.1.1 reduce unnecessary operation of the diesel generators, impose conservative limiting conditions for plant operation and surveillance requirements, and are therefore acceptable. However, for clarity, the proposed action f. should be modified as follows:

- f. With one of the batteries and/or chargers supplying D.C. control power to the 230 kv switchyard breakers inoperable, restore the inoperable battery and/or charger to OPERABLE status or supply all D.C. control power to the 230 kv switchyard from a single OPERABLE battery/charger combination within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

The proposed change to TS 3.8.1.2 and 4.8.1.2.1 is related to Limiting Condition for Operation during Shutdown and Refueling (Modes 5 and 6). This change is to clarify the surveillances and equipment required to be operable during these modes, and is therefore acceptable. There is no significant change from the existing requirement as interpreted by NRR memorandum to Region II, dated October 16, 1987. For clarity, the following sections should be modified to be consistent with other sections of the TS as follows:

- 4.8.1.2.1.c.1.c) The pilot cell voltage is greater than or equal to 2.15 volts under float charge, and
- 4.8.1.2.1.c.1.d) The overall battery voltage is greater than or equal to 120 volts under float charge.

SUMMARY

Based on our review, the changes proposed by the licensee in this amendment request are adequate and acceptable, with the minor changes for clarity noted above.

ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.32, an environmental assessment was published (April 19, 1988, 53 FR 12836). Accordingly, the Commission has determined that the issuance of this amendment will not result in any environmental impacts other than those evaluated in the Final Environmental Statement.

CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 22, 1988

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