



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.  
CITY OF TALLAHASSEE

DOCKET NO. 50-302

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

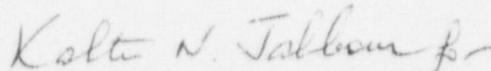
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 179  
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 September 30, 1998, 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, changes to the updated Final Safety Analysis Report (FSAR) and associated Technical Specification Bases, to state that the gaseous radioactivity monitor would require approximately 14 hours to detect a 1 gallon per minute leak from the reactor coolant system, as set forth in the application for amendment by Florida Power Corporation dated September 30, 1998, are authorized. The licensee shall submit the revised description authorized by this amendment with the next update of the FSAR and Technical Specification Bases in accordance with 10 CFR 50.71(e).
3. This license amendment is effective as of its date of issuance and shall be implemented as specified in (2) above.

FOR THE NUCLEAR REGULATORY COMMISSION



Sheri R. Peterson, Chief, Section 2  
Project Directorate II  
Division of Project Licensing Management  
Office of Nuclear Reactor Regulation

Date of Issuance: June 14, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 179

TO FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

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

Remove Page

B 3.4-65

Insert Page

B 3.4-65



## B 3.4 REACTOR COOLANT SYSTEM (RCS)

### B 3.4.14 RCS Leakage Detection Instrumentation

#### BASES

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##### BACKGROUND

10 CFR 50, Appendix A, GDC 30, (Ref. 1) requires means be provided for detecting and, to the extent practical, identifying the location of the source of RCS LEAKAGE. Regulatory Guide 1.45 (Ref. 2) describes acceptable methods for selecting leakage detection systems.

Leakage detection systems must have the capability to detect reactor coolant pressure boundary (RCPB) degradation as soon after occurrence as practical to minimize the potential for propagation to a gross failure. Thus, an early indication or warning signal is necessary to permit proper evaluation of all unidentified LEAKAGE.

The containment sump collects unidentified LEAKAGE and is instrumented to alarm on increasing level and has the capability to detect a leakage rate of 1 gpm in less than 1 hour. This sensitivity is acceptable for detecting increases in unidentified LEAKAGE.

The reactor coolant contains radioactivity that, when released to the containment, can be detected by radiation monitoring instrumentation. Reactor coolant radioactivity levels will be low during initial reactor startup and for a few weeks thereafter until activated corrosion products have been formed and fission products appear from fuel element cladding contamination or cladding defects. Instrument sensitivities of  $10^{-9}$   $\mu\text{Ci/cc}$  radioactivity for particulate monitoring and of  $10^{-6}$   $\mu\text{Ci/cc}$  radioactivity for gaseous monitoring are adequate for these leakage detection systems. The particulate monitoring channel is capable of detecting a change in RCS leak rate of 1 gpm within one hour based on activity levels assumed in the environmental report (0.1% failed fuel). The predominant nuclide of detection for the particulate channel is Rb-88. The gaseous channel requires significantly more time to detect the same change in RCS leak rate (approximately 14 hours). This is due to the relatively long half-life of its predominant nuclide of detection, Xe-133.

Other installed instrumentation such as RB pressure and Containment Cooling Fan condensate flow also indicate leakage into containment. These are potentially valuable

(continued)