

March 13, 1990

Docket No. 50-302

DISTRIBUTION  
See attached sheet

Mr. Percy M. Beard, Jr.  
Senior Vice President,  
Nuclear Operations  
Florida Power Corporation  
ATTN: Manager, Nuclear Operations  
Licensing  
P. O. Box 219-NA-2I  
Crystal River, Florida 32629

Dear Mr. Beard:

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT RE: INTEGRATING ALARM  
DOSIMETERS (TAC NO. 75618)

The Commission has issued the enclosed Amendment No. 126 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). This amendment consists of changes to the Technical Specifications in response to your application dated December 21, 1989.

This amendment allows the use of integrating alarming dosimeters, as an alternative for meeting the requirements for entry into a high radiation area. The amendment also clarifies the escort functions provided by Health Physics Representatives during entry into high radiation areas.

Amended page 6-20 reflects a minor wording change to your original submittal. This change has been discussed with, and agreed to by, your staff.

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

Sincerely,

Original signed by

Harley Silver, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 126 to DPR-72
2. Safety Evaluation

cc w/enclosures:  
See next page

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NAME	:DMiller	:GWunder	:HSilver:jkd	:HBerkey	:Lunningham	:CPW	:
DATE	:02/15/90	:02/22/90	:02/22/90	3/2/90	:02/23/90	:2/27/90	:

\*SEE PREVIOUSLY CONCURRENCE  
OFFICIAL RECORD COPY  
Document Name: AMEND 75618 CR3

*CP1*

DATED: March 13, 1990

AMENDMENT NO. 126 TO FACILITY OPERATING LICENSE NO. DPR-72-CRYSTAL RIVER UNIT 3

**File**

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cc: Plant Service list

Mr. Percy M. Beard, Jr.  
Florida Power Corporation

Crystal River Unit No. 3 Nuclear  
Generating Plant

cc:

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

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  
SEBRING UTILITIES COMMISSION  
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. 126  
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 21, 1989, 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.

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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. 126, 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 its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 13, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 126

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove

6-19  
6-20

Insert

6-19  
6-20

## ADMINISTRATIVE CONTROLS

- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components identified in Table 5.7.-1.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of inservice inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the PRC and NGRC.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.
- m. Records of analytical results required by the Operational Radiological Environmental Monitoring Program.

### 6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

### 6.12 HIGH RADIATION AREA

- 6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c) (2) of 10 CFR 20 a High Radiation Area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit and any individual or group of individuals permitted to enter such areas shall be provided with one or more of the following:
- a.) A radiation monitoring device which continuously indicates the radiation dose rate in the area, or
  - b.) An integrating alarming dosimeter which alarms when a preset integrated dose or dose rate is received. Entry into such areas with this alarming dosimeter may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them, or

## ADMINISTRATIVE CONTROLS

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### 6.12 HIGH RADIATION AREA (Continued)

- c.) An individual qualified in Health Physics Procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities in the area and who performs periodic radiation surveillance at the frequency specified by the Radiation Work permit.

- 6.12.2 A High Radiation Area in which the intensity of radiation is greater than 1000 mrem/hr shall be subject to the provisions of 6.12.1 above, and in addition locked doors shall be provided to prevent unauthorized entry into such area. The keys shall be maintained under the administrative control of the Health Physics Supervisor with one key assigned to the administrative control of Shift Supervisor on duty.

Individual areas that are accessible to personnel, with radiation levels such that a major portion of the body could receive in one hour a dose in excess of 1000 mrem,\*\* and that are located within large areas such as the Reactor Building where no enclosure exists for purposes of locking and no enclosure can be reasonably constructed around the individual area, shall be roped off and conspicuously posted, and a flashing light shall be activated as a warning device.

### 6.13 ENVIRONMENTAL QUALIFICATION

- 6.13.1 By no later than June 30, 1982, all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors" (DOR Guidelines) or NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December, 1979. Copies of these documents are attached to Order for Modification of License DPR-72 dated October 24, 1980.
- 6.13.2 By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

\*\*Measurement made at 18" from source of radioactivity.

6.14 PROCESS CONTROL PROGRAM (PCP)

6.14.1 The PCP shall be approved by the Commission prior to implementation.

6.14.2 Licensee initiated changes to the PCP:

1. Shall be submitted to the Commission in the Semi-annual Radioactive Effluent Release Report for the period in which the change(s) was made.
2. Shall become effective upon review and acceptance by the Plant Review Committee.

6.15 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.15.1 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall be approved by the Commission prior to implementation.

6.15.2 Licensee initiated changes to the OFFSITE DOSE CALCULATION MANUAL (ODCM):

1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made effective.
2. Shall become effective upon review and acceptance by the Plant Review Committee.

6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS  
(Liquid, Gaseous and Solid)

6.16.1 Licensee initiated major changes\* to the radioactive waste systems (liquid, gaseous and solid):

1. Shall be reported to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the evaluation was reviewed by the Plant Review Committee or be included as part of the annual FSAR update.
2. May be implemented upon review and acceptance by the Plant Review Committee.

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\* A major change to a radioactive waste system shall be any change which would alter the ability of the plant or system to meet the requirements of 10 CFR 50, Appendix I.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 126 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 December 21, 1989, Florida Power Corporation (FPC or the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The proposed amendment would allow the use of integrating alarming dosimeters as an alternative for meeting the requirements for entry into a high radiation area. It would also clarify the escort functions provided by Health Physics representatives during entry into a high radiation area.

Amended page 6-20 reflects a minor wording change to the licensee's original submittal. The change was clarifying in nature and was discussed with, and agreed to, by the licensee. This change did not alter the action noticed in the Federal Register on February 7, 1990, and did not affect the staff's determination.

EVALUATION

Currently, the TS contain a provision that any person or group of people entering a high radiation area (dose rate greater than 100 mrem/hr and less than 1000 mrem/hr) must be provided with a radiation monitoring device that continuously indicates the radiation dose rate in the area. The proposed change would allow two alternatives to a continuously indicating device. The first alternative is the use of an integrating alarming dosimeter by any individual or group entering a high radiation area. This change also includes the restriction that the licensee ensure that anyone using such a dosimeter be made aware of the dose rate in the area before entry. The second alternative is assigning a Health Physics representative as an escort to any individual or group entering a high radiation area. The escort would be equipped with a radiation monitoring device, and would be responsible for providing positive control over the activities performed in the area.

In regard to the first alternative, integrating alarming dosimeters are designed to provide an alarm when a preset dose or dose rate, prescribed on the radiation work permit, is reached. The preset alarming dose cannot be changed by workers in the field. The licensee has established procedures that require anyone receiving a high dose or dose rate alarm to leave the area immediately and

contact Health Physics. The licensee has also established procedures to ensure that integrating alarming dosimeters are calibrated in accordance with applicable ANSI standards.

Since the licensee is required to ensure that anyone using an integrating alarming dosimeter is aware of the dose rate in the area in which they will be working before entry, there is reasonable assurance that anyone using such a device will be aware of how rapidly they are approaching their preset limit. Since the licensee has established procedures to ensure that integrating alarming dosimeters are calibrated in accordance with applicable ANSI standards, and since the preset limit cannot be changed by workers in the field, there is reasonable assurance that integrating alarming dosimeters provide as much protection as would continuous indicating devices. Therefore, the staff concludes that the use of the integrating alarming dosimeters is an acceptable alternative to the use of continuously indicating radiation monitoring devices for entry into a high radiation area.

In regard to the second alternative, the proposed change simply clarifies the duties of Health Physics representatives assigned to escort individuals or groups in high radiation areas. The proposed change states that the Health Physics representative shall be qualified in health physics procedures, shall be equipped with a radiation monitoring device, shall maintain positive control over activities in the area, and shall make radiation surveillances in accordance with the radiation work permit. The staff finds that these changes serve only to enhance safety and are, therefore, acceptable.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). This amendment also relates to changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### 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: March 13, 1990

Principal Contributor:

G. Wunder