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U.S. NUCLEAR REGULATORY COMMISSION

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50-335

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FILE NUMBER

TO:

Mr. Victor Stello

FROM:

Florida Power & Light Company  
Miami, Florida  
Robert E. Uhrig

DATE OF DOCUMENT

12/21/77

DATE RECEIVED

12/27/77

LETTER

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DESCRIPTION

ENCLOSURE

License No. DPR-67 Appl for Amend: tech specs proposed change concerning high radiation area monitoring....notorized 12/21/77.....

(1-P)

(1-P)+(3-P)

PLANT NAME: St. Lucie Unit No. 1  
RJL 12/28/77

SAFETY

FOR ACTION/INFORMATION

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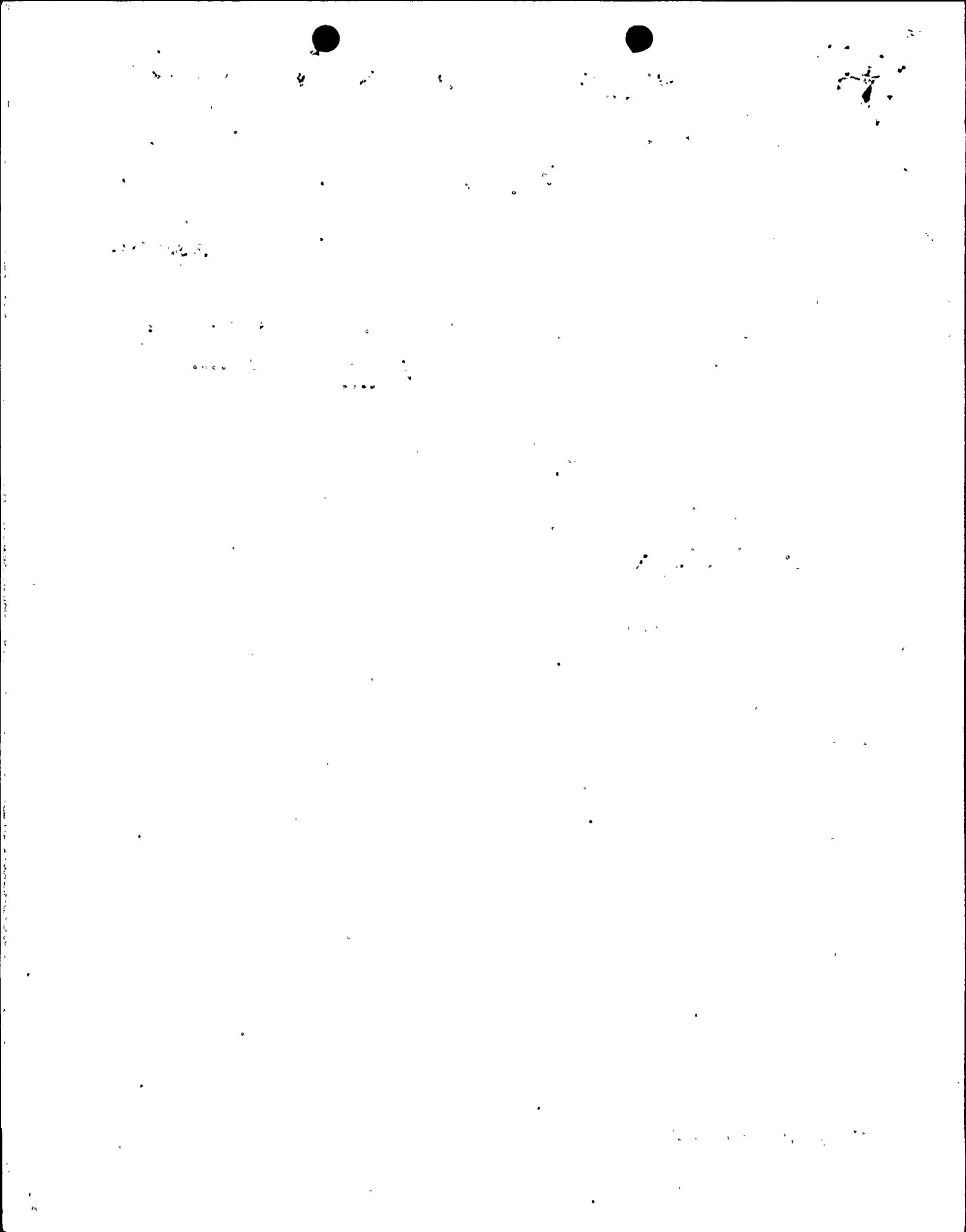
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APP 2

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REGULATORY DOCKET FILE COPY

P. O. BOX 013100, MIAMI, FL 33101



December 21, 1977  
L-77-388

Director of Nuclear Reactor Regulation  
Attention: Mr. Victor Stello, Director  
Division of Operating Reactors  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555



Dear Mr. Stello:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Proposed Amendment to  
Facility Operating License DPR-67

In accordance with 10 CFR 50.30, Florida Power & Light Company submits herewith three (3) signed originals and forty (40) copies of a request to amend Appendix A of Facility Operating License DPR-67.

The proposed amendment is described below and shown on the accompanying Technical Specification pages bearing the date of this letter in the lower right hand corner.

Page 6-19

Specification 6.13 (High Radiation Area) is replaced with the corresponding section from the Standard Technical Specifications.

The proposed amendment has been reviewed by the St. Lucie Facility Review Group and the Florida Power & Light Company Nuclear Review Board. They have concluded that it does not involve an unreviewed safety question. A written safety evaluation is attached.

Very truly yours,

Robert E. Uhrig  
Vice President

REU/MAS/cpc  
Attachment

cc: Mr. James P. O'Reilly, Region II  
Robert Lowenstein, Esquire  
Edward Reeves

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- f. Unless otherwise authorized by the Commission, the licensee shall not assign protection factors in excess of those specified in Table 6.12-1 in selecting and using respiratory protective equipment.

### REVOCACTION

6.12.3 The specifications of Section 6.12 shall be revoked in their entirety upon adoption of the proposed change to 10 CFR 20, Section 20.103, which would make such provisions unnecessary.

### 6.13 HIGH RADIATION AREA

6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit\*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility Health Physicist in the Radiation Work Permit.

6.13.2 The requirements of 6.13.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or the Plant Health Physicist.

\*Health Physics personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

## SAFETY EVALUATION

Re: St. Lucie Unit 1  
Docket No. 50-335  
High Radiation Area Monitoring

### I. Introduction

This evaluation supports a proposed change to Technical Specification 6.13 on administrative control of high radiation areas. The existing Specification is replaced by the corresponding section from the Standard Technical Specifications.

### II. Evaluation

The current Specification requires that any individual or group of individuals permitted to enter a high radiation area be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area. For the case of containment entry with the reactor at power, such a requirement represents good health physics practice. It does not, however, guarantee the intended exposure control in all situations.

For example, when an individual or group of individuals enters a high radiation area which has been surveyed and posted in accordance with the stringent requirements of the Radiation Work Permit (RWP) procedure, a continuously indicating dose rate device located in the same area will not necessarily provide additional exposure control. The device must be read frequently to determine if radiological conditions have changed. The current Specification does not guarantee that an individual intent on doing his job will also remember to read the radiation monitoring device. Thus, such a device may satisfy the legal requirements of the current Specification without satisfying the intent of the Specification.

Exposure control is achieved in part by administrative procedures that require a radiation survey prior to entry into high radiation areas. Once dose rates are known, Health Physics Department personnel set "stay times" for individuals for the purpose of limiting the individual's accumulated dose. By using one of the proposed alternatives to the current Specification, i.e., the dose integrating/alarming device, we believe that better exposure control is possible. Under this alternative, an individual could have an electronic device attached to his protective clothing, or health physics personnel could set up a dose integrating device in the area. Such devices would have an audible alarm that would annunciate when a preset accumulated dose (determined by health physics personnel) was exceeded. All individuals would be instructed

to leave the work area should an alarm occur.

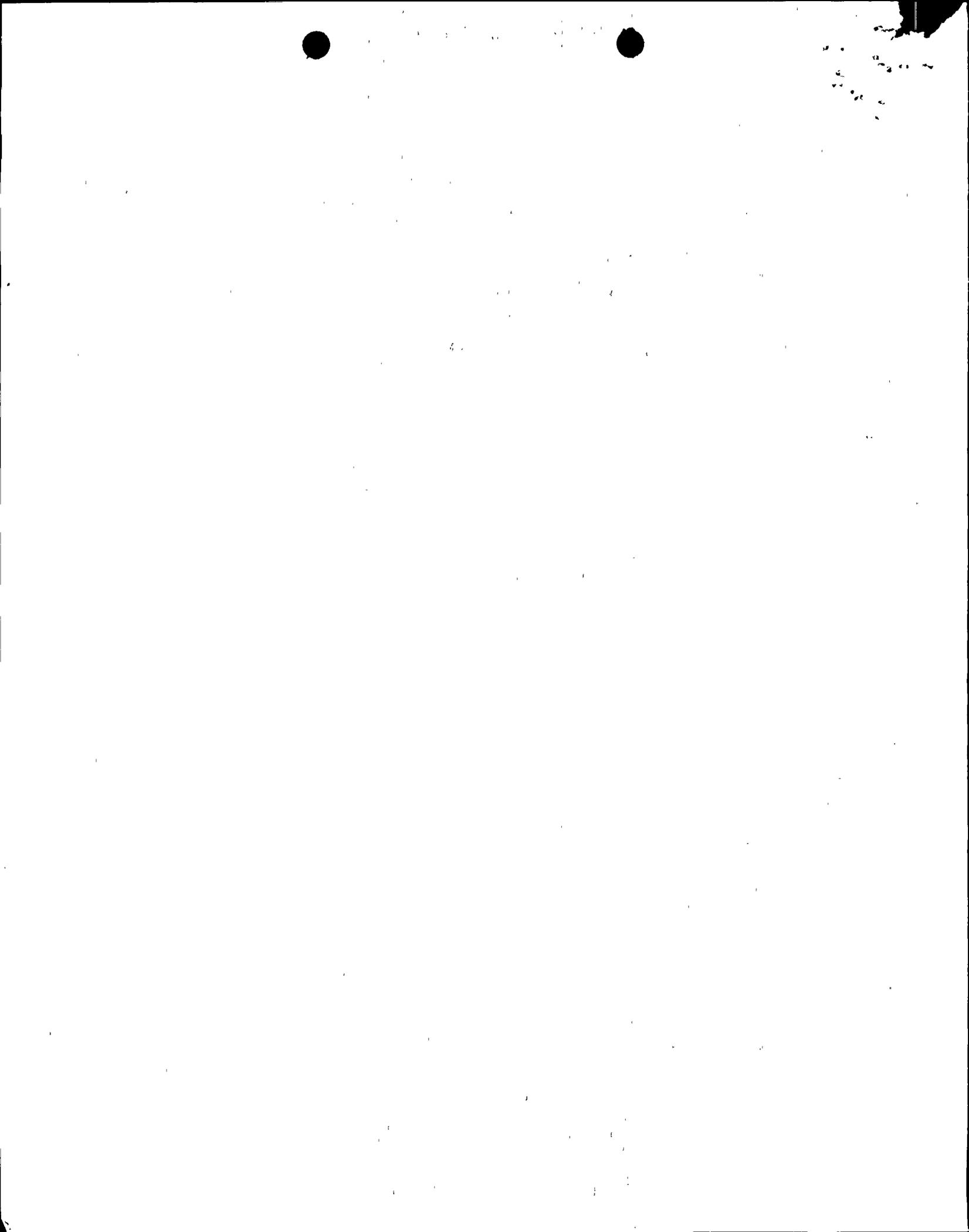
By using a device with an audible alarm setpoint, personnel would be better protected against the effects of changes in the dose rate. With current practice, a worker cannot become aware of a change in dose rate without periodically monitoring a dose rate device. Thus, the proposed specification is conservative with respect to the current Specification because it does not depend on individuals monitoring their pocket dosimeters frequently (as they are instructed to do) or monitoring a separate dose rate device.

We are also proposing an additional alternative to the current specification, i.e., the provision for direct health physics coverage of a job by a health physics qualified individual. For example, consider the case of steam generator water box entries for the purpose of tube inspection or plugging. Health physics personnel determine the dose rates in the water box, set stay times, and determine what protective clothing must be worn during the entry. Because of the high dose rates, airborne activity, and contamination, stay times of only minutes are allowed, and a double set of coveralls, a plastic suit, and supplied air are required. During the entry, health physics personnel are at the entrance to the water box to ensure that the individual is properly dressed. Once the entry is made, the health physics personnel time the individual to ensure that he minimizes his exposure and does not exceed the plant's administrative exposure limits nor those of the Commission.

Because of the air line and other clothing and equipment that the individual making the entry must carry into the confined space, and the necessity for short stay times, he cannot carry a meter with him. We believe that in this case and similar cases, our practice is appropriate and that it is in keeping with the exposure control intent of the present Specification.

### III. Conclusion

Based on the considerations described above, (1) the proposed change does not increase the probability or consequences of accidents or malfunctions of equipment important to safety and does not reduce the margin of safety as defined in the basis for any technical specification, therefore, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

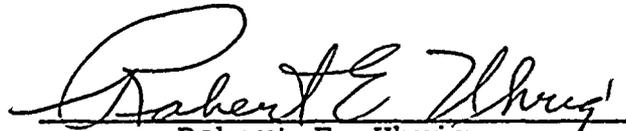


STATE OF FLORIDA    )  
                          )  
COUNTY OF DADE    )        SS.

Robert E. Uhrig, being first duly sworn, deposes and says:

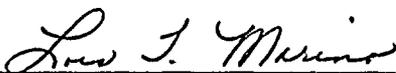
That he is a Vice President of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this said document are true and correct to the best of his knowledge, information, and belief, and that he is authorized to execute the document on behalf of said Licensee.

  
Robert E. Uhrig

Subscribed and sworn to before me this

21st day of December, 1977

  
NOTARY PUBLIC, in and for the County of Dade,  
State of Florida

My commission expires: NOTARY PUBLIC STATE OF FLORIDA at LARGE  
MY COMMISSION EXPIRES AUGUST 24, 1981  
BONDED THRU MAYNARD BONDING AGENCY



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PROPOSING UNIT

1977 DEC 27 PM 12 15

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
DENVER, COLORADO