

October 9, 1980

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Docket Nos. 50-250  
 and 50-251

Dr. Robert E. Uhrig, Vice President  
 Advanced Systems and Technology  
 Florida Power and Light Company  
 Post Office Box 529100  
 Miami, Florida 33152

Dear Dr. Uhrig:

On May 29, 1980, the Commission published a proposed rule, a new paragraph 50.48 and Appendix R to 10 CFR Part 50, concerning fire protection, which sets forth the minimum acceptable fire protection requirements necessary to resolve contested areas of concern for nuclear power plants operating prior to January 1, 1979.

We have reviewed all the information you have provided to date regarding your fire protection program. Several of the open items indicated in our Safety Evaluation Report issued March 21, 1979 remain unresolved. Enclosure 1 presents our position on modifications that would have to be made at your facility to resolve these open items, in a manner that would meet the requirements of the proposed Appendix R.

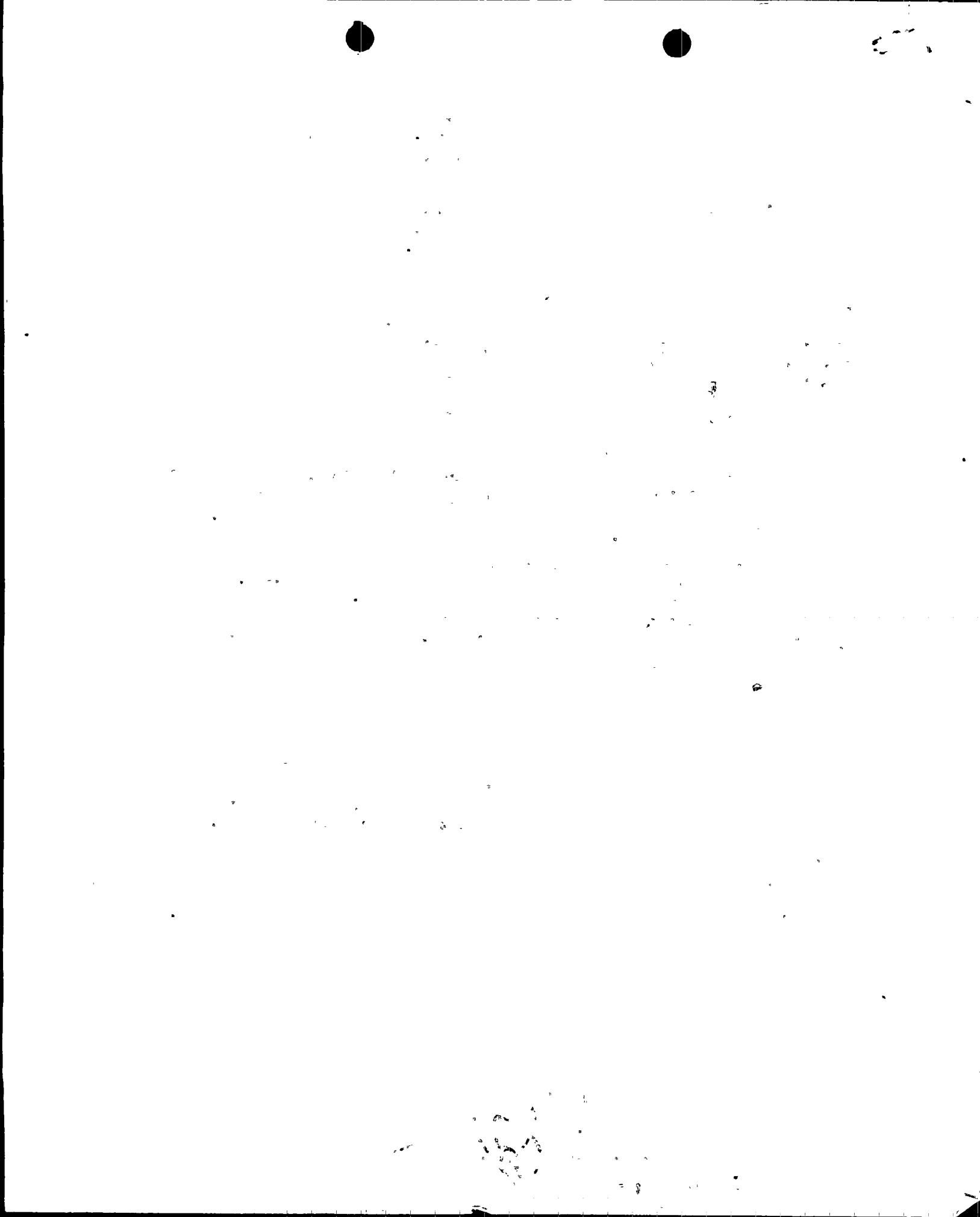
Sincerely,

Steven A. Varga, Chief  
 Operating Reactors Branch #1  
 Division of Licensing

Enclosure:  
 As Stated

cc: w/enclosure  
 See next page

OFFICE	XXXXXX	DL:ORB1	DL:ORB1		
SURNAME		MGrotenhuis	SAVarga		
DATE		10/8/80:jb	10/8/80		





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

October 9, 1980

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Sincerely,

A handwritten signature in black ink, appearing to read "Steven A. Varga".

Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Enclosure:  
As Stated

cc: w/enclosure  
See next page

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Dr. Robert E. Uhrig  
Florida Power and Light Company

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October 9, 1980

cc: Elizabeth S. Bowers, Esquire,  
Chairman  
Atomic Safety and Licensing Board  
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U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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Atomic Safety and Licensing Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555



SUMMARY OF STAFF REQUIREMENTS  
TO RESOLVE OPEN ITEMS  
TURKEY POINT UNITS 3 & 4

3.1.2 and 3.2.3 Fire Water Supply

In the Fire Protection Safety Evaluation Report, we were concerned about the adequacy of the screen wash pumps as an alternate source of water for fire fighting as well as the ability of the system to provide the water supply for fixed systems.

By letter dated May 7, 1980 the licensee proposed to install a spool piece to interconnect the screen wash pump to the fire protection water system. However, the licensee did not want the spool piece to be permanently connected, because of the possibility of contaminating the domestic water supply, which is connected to the water supply. The licensee also proposed to administratively control the volume of dedicated fire protection water in the gravity tanks and the raw water storage tanks. Because of the high rate of failure, administrative controls, by themselves alone, are not acceptable. We find that the screen water pumps cannot be considered as a backup, since they are not permanently tied to the fire water system.

In order to meet the requirements of Section III Paragraph A, of the proposed Appendix R to 10 CFR 50 the licensee should provide a vertical stand-pipe for the existing 500,000 gallon raw water storage tank. The licensee should, also install a new water storage tank as a secondary source of fire water. An automatic starting diesel fire pump with adequate capacity is required to supply water to the fire loop from the secondary source.

3.2.4 Auxiliary Building Corridor

In the Fire Protection Safety Evaluation Report it was our concern that a fire in the auxiliary building corridor could damage redundant safety related cables that could affect both units from achieving cold shutdown.

By letters dated May 7, 1980 and June 9, 1980, the licensee provided additional information. The licensee stated that all cables in the corridor are coated with a fire retardant coating. The licensee also stated that although some of these cables are needed for the safe cold shutdown, the units can be placed in hot shutdown mode, and these specific cables could be repaired or replaced to bring the units to a cold shutdown condition. The additional information submitted by the licensee has been previously evaluated and the licensee informed that it does not meet our concerns.

The licensee has not demonstrated that adequate protection features have been provided for cables and equipment of redundant systems important to achieving safe shutdown conditions to ensure that at least one means of achieving such conditions survives postulated fires.

In order to meet the requirements of Section III.G of proposed Appendix R to 10 CFR Part 50, the licensee should provide the following:

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1. An automatic sprinkler system in the auxiliary building corridor to protect the cable trays from an exposure fire;
2. A fire detection system in the chemistry laboratories (hot and cold labs) and in the new laundry facility;
3. Three-hour fire doors in the auxiliary building for the chemistry laboratories (hot and cold labs) and new laundry facility;
4. Three-hour fire rated fire dampers for ventilation ducts in the chemistry laboratories (hot and cold labs) and the new laundry facility; and
5. The plastic barrels used to collect radiation protective clothing be replaced with barrels made of a fire retardant material.

To meet our fire protection guidelines, alternate shutdown capability should be provided when safe shutdown cannot be ensured by barriers and detection and suppression systems because of the exposure of redundant safe shutdown equipment, cabling, or components in a single fire area, to an exposure fire, or fire suppression activities, or rupture or inadequate operation of fire suppression systems.

To meet Section III, Paragraph G. of the proposed Appendix R to 10 CFR Part 50, the licensee should provide an alternate shutdown capability independent of this area. The alternate shutdown system should meet the requirements of Section III, Paragraph L of proposed Appendix R to 10 CFR Part 50.

### 3.2.5 Cable Spreading Room

In the Fire Protection Safety Evaluation Report it was our concern that a fire in the cable spreading room could prevent both units from achieving safe shutdown.

By letters dated May 7, 1980 and June 9, 1980 the licensee provided additional information. The licensee stated that all cables in the cable spreading room are coated with a fire retardant coating. The licensee also stated that although redundant safety related cables and equipment may be damaged by a fire, the units can be placed in a hot shutdown condition and necessary repairs and/or replacement be made to bring the units to a cold shutdown condition.

The additional information submitted by the licensee has been previously evaluated and the licensee informed that it does not meet our concerns.

The licensee has not demonstrated that adequate protection features have been provided for cables and equipment of redundant systems important to achieving safe shutdown conditions to ensure that at least one means of achieving such conditions survives postulated fires.

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In order to meet the requirements of Section III.G of Proposed Appendix R to 10 CFR Part 50 the licensee should provide the following:

1. An automatic water suppression system in the room;
2. A booster hose station in the room; and
3. Access doors from the cable spreading area to the turbine building to have 1-1/2 hour rating.

To meet our fire protection guidelines, alternate shutdown capability should be provided when safe shutdown cannot be ensured by barriers and detection and suppression systems because of the exposure of redundant safe shutdown equipment, cabling, or components in a single fire area, to an exposure fire, or fire suppression activities, or rupture or inadequate operation of fire suppression systems.

To meet Section III, Paragraph G of the proposed Appendix R to 10 CFR Part 50, the licensee should provide an alternate shutdown capability independent of this area. The alternate shutdown system should meet the requirements of Section III, Paragraph L of proposed Appendix R to 10 CFR Part 50.

#### 5.0 Fire Brigade Size

In the Fire Protection Safety Evaluation Report, it was our concern that the licensee's fire brigade was not sized, drilled, and trained adequately to provide assurance that the manual fire suppression capability would be adequate.

By letter dated September 25, 1979, the licensee proposed to maintain a trained fire brigade size of three fire fighters and provided his justification.

We evaluated the licensee's bases and found that the plant specific justifications were not sufficient to support the proposal for the following reasons:

1. Although the potential for fires may be reduced during back, holiday, and weekend shifts as a result of limited work activities, the potential for fire is not eliminated.
2. The on-site fire brigade is not self-sufficient to promptly extinguish fires beyond the incipient stage. Undue reliance is placed on offsite response. It does not provide any margin to cope with adverse events such as delayed detection, failure of automatic systems or personnel injury.
3. (a) Administrative control of combustibles and ignition sources do not provide adequate protection.  
(b) Fires are not always immediately detected.  
(c) Varying factors may delay response of the fire brigade and the offsite fire department, i.e., injury to a brigade member; other fire commitment by offsite fire department.

- (d) Automatic suppression systems do not always operate properly.
- (e) The specific conditions that exist at the time of the fire cannot be accurately predicted.

The fire brigade size and training program should meet the requirements of Section III, Paragraph H and I of the proposed Appendix R to 10 CFR Part 50.



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