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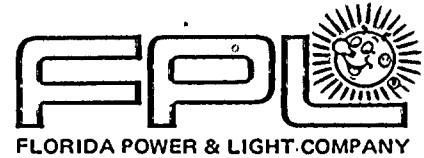
ACCESSION NBR: 8211160246 DOC. DATE: 82/11/12 NOTARIZED: NO DOCKET #
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
 AUTH. NAME AUTHOR AFFILIATION
 UHRIG, R.E. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 EISENHUT, D.G. Division of Licensing

SUBJECT: Forwards encl inadvertently omitted from 821110 response re
 App R fire protection submittal.

DISTRIBUTION CODE: A006S COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
 TITLE: OR Submittal: Fire Protection

NOTES:

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INTERNAL:	ELD/HDS4	1 0	IE FILE 06	1 1
	NRR FIORAVANT07	2 2	NRR WAMBACH	1 0
	NRR/DE/CEB 09	2 2	NRR/DL DIR	1 1
	<u>REG FILE</u> 04	1 1	RGN2	1 1
EXTERNAL:	ACRS 11	3 3	LPDR 03	1 1
	NRC PDR 02	1 1	NSIC 05	1 1
	NTIS	1 1		



November 12, 1982
L-82-501

Office of Nuclear Reactor Regulation
Attention: Mr. Darrell G. Eisenhut
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Eisenhut:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 and 50-251
Appendix R
Fire Protection Submittal

Reference: (a) FPL Letter No. L-82-500 dated November 10, 1982.

Enclosure (1) of our November 10, 1982 was omitted by mistake.
The enclosure is attached to this letter. Please accept our
apology for the oversight.

Yours truly,

A handwritten signature in cursive script, appearing to read "Robert E. Uhrig".

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU:JNB:cf

Enclosure

cc: Mr. James P. O'Reilly, Region II
Harold Reis, Esquire

A006

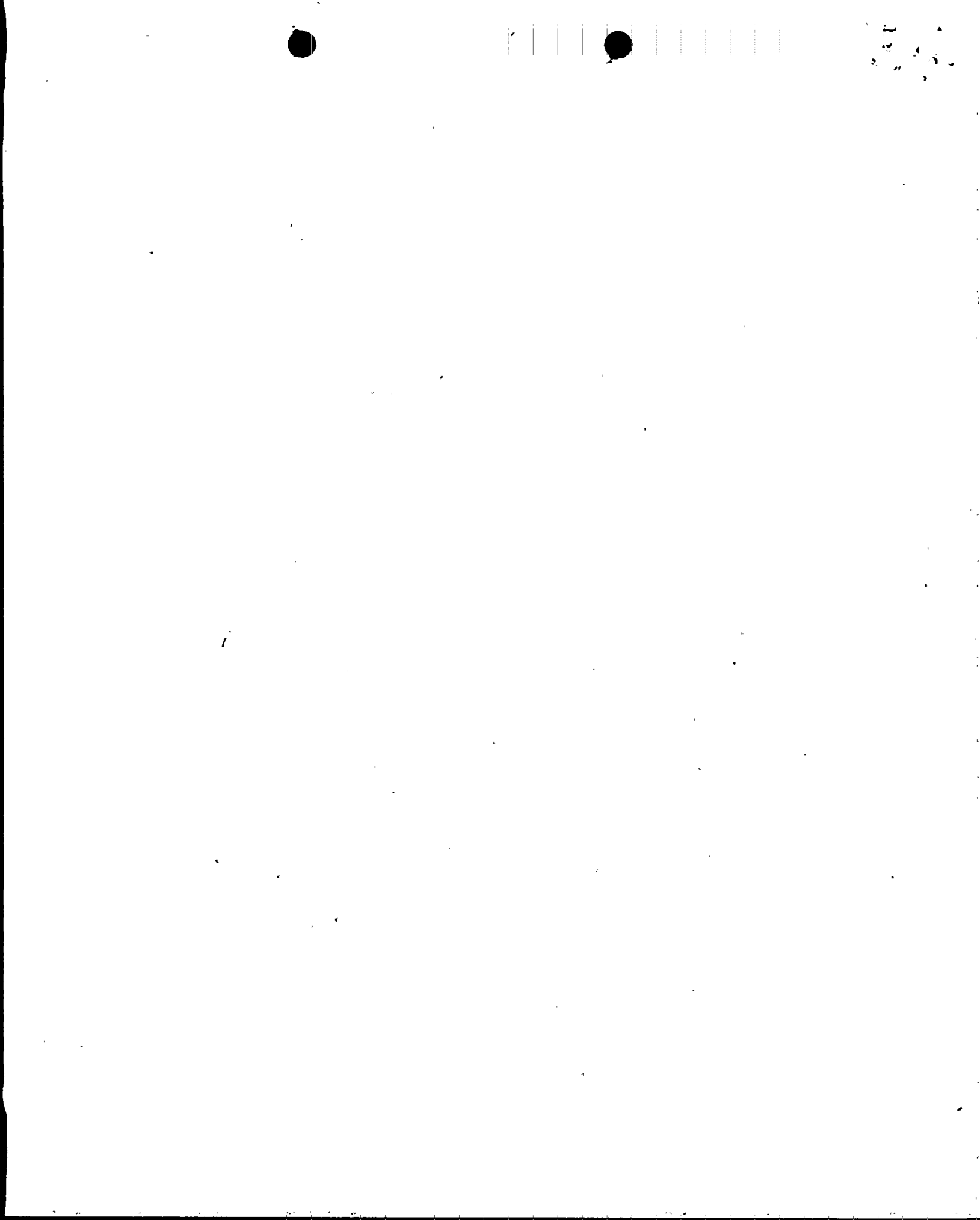
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FPL RESPONSE TO STAFF'S QUESTIONS
OF OCTOBER 27, 1982 MEETING
10CFR50 APPENDIX R
FIRE PROTECTION SUBMITTAL

TURKEY POINT UNITS 3 AND 4

NOVEMBER 10, 1982

Enclosure (1)



QUESTION: How is the fire protection water volume dedicated?
(Ref. p.2.2-1)

Administrative controls, even from duplicate tanks is not acceptable.

RESPONSE: Both the existing 500,000 gallon raw water storage tank and the new 750,000 gallon raw water storage tank shall have 300,000 gallons of water dedicated for fire protection purposes by the installation of vertical standpipes on non-fire protection systems utilizing these water supplies.

QUESTION: Automatic start and manual stop for electric and diesel drive fire pumps? (Ref: p.2.2-2)

RESPONSE: The electric-driven fire pumps are designed to start automatically when header pressure drops below a set value. Increased header pressure will not stop the pumps. They must be stopped manually at the pump start/stop local control station. The diesel-driven fire pump to be installed will function in the same manner.

QUESTION: Cables cannot be fire proofed. (Ref: p.2.7-2)

RESPONSE: FPL agrees with the Staff's comment: The intent of Section 2.7 was to provide an historical account of FPL's use of flame retardant cable coatings. "Cable Fireproofing" is an unprecise statement which was utilized in FPL's 1977 fire protection submittal and a poor choice of words. FPL does not contend that cables can be fire proofed, but that a significant level of protection can be provided by the use of flame retardant coatings.

QUESTION: Will the plant be shutdown in the event of a fire of consequence? (Ref: p.3.0-1)

RESPONSE: Sentence should read as follows:
"Should a fire of consequence occur, the plant would be brought to hot zero power condition and maintained there while the fire and any resulting damage are accommodated."

QUESTION: Are leaks in pressurized lines considered? If not, why not? If so, where is the discussion? (Ref: p.4.0-14)

RESPONSE: Yes, leaks in pressurized lines are considered. Under Subsection C.1 "Fire Area Combustibles" of each Fire Area Evaluation a discussion is provided of those major liquid hydrocarbons existing in the area, their type, quantity, and application. Included in this discussion is an evaluation of their potential to contribute to the design basis fires postulated in the area. Of the eighteen safety related areas evaluated, only three were determined to contain pressurized oil systems; the Unit 3 and Unit 4 Containment Buildings and the Auxiliary Feedwater Pump Area.

These areas contain the Reactor Coolant Pump and Auxiliary Feedwater Pump lubricating oil systems. As discussed in Sections 5.2.8, 5.2.9, and 5.2.10, these systems were determined not to be a combustible source since the Reactor Coolant Pumps have an oil collection system and the total welded design of the Auxiliary Feedwater Pump lubricating oil system makes leakage unlikely. It is further noted the Standby Steam Generator Feed-pumps to be installed are redundant to the AFW pumps.

QUESTION: I do not understand the second paragraph. (Ref: p.4.1-27)

RESPONSE: The intent of this paragraph was to merely describe the desirability of the fire sector approach in conducting a fire hazards analysis. This desirability primarily manifests itself from the fire sector selection process which determines the bounding fire locations within an area and thus provides a clearer understanding of sensitivity of different components within that area.

QUESTION: Cable degradation, not just ignition or failure must be considered (Ref: 4.1-28)

RESPONSE: FPL agrees with the Staff's comment, and provides the following clarification. The onset of jacket degradation/off-gasing was considered in evaluating the level of fire protection required. The limiting combustible quantities required to achieve this damage criterion are provided in the fire sector tables for each fire area. As an example, in the unlikely event that a 7.5 gallon heptane fire were to occur in Sector L, see table 5.2.2, our proposed design features will limit fire damage so that at least one train of systems necessary to achieve and maintain hot and cold shutdown conditions are free of fire damage. The piloted and autoignition failure criteria were emphasized in this report to address the secondary fire concerns associated with electrical cables.

QUESTION: p. 4.1.-35
Line 1 "May range"
Line 5 "May also vary"
Line 7 "May also contribute"
Do they or don't they, I feel the writer is hedging and this simply makes me more suspicious of the entire document.

RESPONSE: FPL agrees with the Staff's comment. This paragraph has been changed to reflect your comments and should read as follows:

"The sizes of such cables reflect the varied functions and range from No. 16 AWG to No. 4/0 AWG. The linear densities of the insulation for such cables typically range over an order of magnitude while the effective surface-area per unit-length can vary by less than a factor of three. In addition, the jacket and insulation compositions also vary in terms of susceptibility to thermally-induced damage. Finally, the presence of flame retardant coatings also contribute to an additional level of protection. All of these factors combined with the effects of



11

cable orientation relative to a postulated fire suggest a potentially confusing picture for the analyst."

QUESTION: A thermal insulating wrap is described as providing "the equivalent protection of a one hour rated barrier". Are there one hour barriers? What does "equivalent protection" mean?

RESPONSE: Please omit the word "equivalent" where it appears in the report when addressing fire rated barriers.

QUESTION: Many perimeter walls, floors, and ceilings are upgraded by sealing penetration openings or providing dampers in ventilation duct openings. Some installations call for one hour seals and dampers while others specify three hour protection. Why are all not three hour?

RESPONSE: Three hour fire rated barrier protection of all safety related areas was not specified primarily for economic reasons. For those areas where protection of equipment/cables was provided by a combination of 1 hour fire rated barriers and suppression and detection, the walls, floors and ceiling of the area were likewise upgraded to 1 hour barriers. With the exception of the Unit 3 and 4 Containments and the outside areas, (where exemptions are requested) all one hour rated walls, floors and ceilings were provided with suppression and detection on both sides of the barrier.

QUESTION: I see no adequate justification for the several schedule exemption requests. Some, for instance, are for emergency procedures which should already be developed. Others are based upon cutting into the fire water distribution system. How is this different from a break in the piping which the plant is already supposed to be able to tolerate in the "worst" location? Also, some requests are based upon statements that some modifications may require this or that procedure. Does the licensee yet know what the required modification designs will be? If not, why not?

RESPONSE: Although the fire water distribution system at Turkey Point is designed to accomodate pipe breaks through the use of sectionalizing control or isolation valves, Technical Specification 3.14 "Fire Protection Systems" requires that certain sprinkler systems and hose stations be operable, whenever the equipment in the protected area is required to be functional. In order to ensure the fire protection capability stipulated in the Technical Specification is maintained, those modifications which require cutting into the fire water distribution system were thus scheduled to be conducted during an outage period.

The emergency operating procedures for which schedule exemptions are requested can be classified into either of the following two categories:

1. Those operating procedures associated with proposed equipment modifications. For example, the charging system crosstie proposed for Fire Areas 45 and 55.
2. Those operating procedures associated with existing equipment (not impacted by FPL's proposed modifications). For example, emergency operating procedures to provide for those specific operator actions identified on p.5.2-14 and 15 of the Report for Fire Area 20.

Those operating procedures which fall into category (1) cannot be developed until the final detailed design of the modifications is complete. These modifications are presently in the conceptual engineering design phase. Those operating procedures pertaining to category (2) can be developed from the specific operator actions identified for each applicable Fire Area.

Due to the large number (13) of Fire Areas requiring emergency operating procedures, FPL has requested a one month extension from the required implementation schedule of 10CFR50.48 in order to ensure an adequate time period for review.

