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TO:	FROM:	DATE OF DOCUMENT
Mr. V. Stello	Oak Ridge National Lab Oak Ridge, Tennessee L. C. Oakes	1/17/78
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(1-P)	Review of ltr. from Robert Uhrig (FPL) to George Lear (USNRC) dtd. 12/14/77.. (2-P)
RJL 1/24/78	1 ENCL

PLANT NAME: Turkey Point 3 & 4
St. Lucie 1

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OAK RIDGE NATIONAL LABORATORY
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POST OFFICE BOX X
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January 17, 1978

Mr. V. Stello, Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Stello:

Review of Letter from Robert Uhrig (FPL)
to George Lear (USNRC) Dated December 14, 1977

We have reviewed a letter (with enclosure) from Mr. Robert Uhrig, Florida Power and Light, to Mr. George Lear, USNRC, dated December 14, 1977, Docket Nos. 50250, 50251, and 50335. This letter was in response to a Request for Information.

It is our opinion that further clarification is needed as detailed in the attached commentary.

Sincerely,

L. C. Oakes

pj

Attachment

cc: R. Brodsky, DOE
W. R. Butler, NRC
F. H. Clark
S. J. Ditto
H. N. Hill
T. A. Ippolito, NRC
G. D. McDonald, NRC
F. R. Mynatt
T. W. Reddoch
F. Rosa, NRC
D. B. Trauger

COMMENTARY ON LETTER 12/14/77, UHRIG (FPL) TO LEAR (USNRC)*

Question 1

The response to 1.3 gives limitations on the line based on long-term operation. It does not phrase an operational dictum like "The line may be operated at above x amperes but not exceeding y amperes for a time not to exceed z minutes," where z is a number small enough to provide operational guidance. We presume there is no such operational guideline.

Line sag is computed for two different temperatures, but no indication is given as to what the temperature of the line was when it relayed open. Can we presume that there is no recorded data on the line current over this 16-minute period (10:08-10:24) from which a temperature profile could be determined?

It was made very clear at the November 18 meeting that all conclusions should be supported by the data on which they were based. It was also made clear that because relays are more apt to respond to transient peak stress conditions than to interval average conditions, an estimate of average interval conditions serves little purpose. The power estimates given in 1.6 fail on both these counts. Therefore, we request the 16-minute (10:08-10:24) record of each variable that was used in making this power calculation and a sample of how the calculation was made. Also a reference is made in this response to past history of division of the load (between the two Ft. Myers-Ranch lines). If there are records of such a division of transmission on these lines at approximately 500-600 MW total power, please furnish them. In a dynamic situation such as the system was then experiencing would the relative loading of the two lines be expected to oscillate so that an average relative loading would not reflect peak conditions on one?

Also, in the response to 1.6, oscillogram records from Ringling are included; oscillogram records from Broward and Midway are cited but not included. Please, therefore, furnish copies of the Broward and Midway oscillogram records. Oscillogram records at locations remote from a fault cannot be interpreted without some knowledge of the intervening circuitry, particularly transformer coupling. Therefore, please furnish the indicated intervening circuitry description for Ringling, Broward, and Midway.

Question 2

The response "We have concluded that the Turkey Point trip could not, by itself, have caused the line to relay" is not supported. Furnish any supporting analysis with full description.

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*Attachment to letter from L. C. Oakes to V. Stello, "Review of Letter from Robert Uhrig (FPL) to George Lear (USNRC) dated December 14, 1977," dated January 17, 1978.

Question 3

The response to Question 3 appears to suggest that the calculation involving the loss of Turkey Point 4 in the FCG study is to be considered to bound the events which occurred around 10:08 on 5/16/77. If this suggestion is intended, furnish a detailed description of this calculation showing relevant detail which causes it to be regarded as bounding.

Question 6

The response to Question 6 is unclear in some respects. It is our understanding that Southern Co. and Florida Power and Light have not yet entered an agreement for a 500 kV Georgia-Florida tie. Is that correct? It is our understanding that the 800 MW interchange capability from Georgia to Florida which was, according to referenced FPL reports, to be ready in 1976 is not yet available. Is that correct?

Question 7

The reply to Question 7.3 does not contain the discussion requested and is not satisfactory.