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Docket Nos. 50-250
and 50-251

FEB 02 1981

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 January 15, 1981 we issued Amendment No. 54 to Operating License No. DPR-41 for Turkey Point Plant Unit No. 4. This amendment contained a new license conditions, paragraph 3.D.7, which required certain information by February 28, 1981. The enclosure to this letter provides guidance for your response to the license condition.

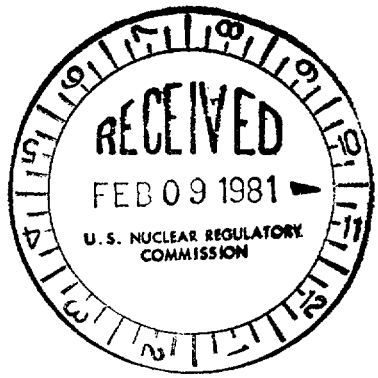
Sincerely,

Original signed by:
S. A. Varga

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

Enclosure:
Wastage Degradation of Steam Generator Tubes

cc;
See next page



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DATE	2/2/81	2/2/81					

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

February 2, 1981

Docket Nos. 50-250
and 50-251

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Advanced Systems and Technology
Florida Power and Light Company
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Miami, Florida 33152

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cc:
See next page

Robert E. Uhrig
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TURKEY POINT UNIT 4
WASTAGE DEGRADATION OF STEAM GENERATOR TUBES

Amendment 54 authorized the operation of Turkey Point Unit 4 for six equivalent months beginning January 13, 1981, contingent upon the submittal of confirmatory data for staff review by February 28, 1981. As a minimum, the licensee should submit confirmatory information or data for each of the four items below:

1. It is our understanding based upon telephone conversations with the licensee that during the November, 1980 inspection all pluggable wastage indications were found during the "original" ECT sampling program, and that the "expanded" program performed in accordance with Regulatory Guide 1.83 did not reveal any additional pluggable indications. The licensee should confirm this information in their submittal.
2. Provide the eddy current reading (i.e. depth of penetration) for each of the pluggable wastage indication found during the November 1980 inspection. For these same tubes, provide the eddy current readings obtained in April 1979 and in May 1980.
3. Provide the average incremental wastage increase (in terms of % of through wall penetration), broken down by steam generator and hot and cold leg, relative to the May 1980 inspections for all tubes containing greater than 20% indications in December 1980.
4. The licensee has informally submitted (by telecopy) a report which states that 13 mils remaining wall is adequate to preclude burst or collapse failures of the Turkey Point Model 44 steam generator tubes for postulated

accident conditions. This information should be included in the licensee submittal. In addition, the licensee should provide the following:

a) A discussion of the "testing and analysis" which was used to determine the required wall thickness to resist buckling during LOCA.

b) A discussion of the conservatism of the calculated collapse pressures relative to the above mentioned test data.

c) A discussion of the applicability of the analytical technique for calculating collapse pressure to a tube with only 13 mils remaining wall.

d) The telecopied report indicates the maximum reverse Δp during LOCA to be approximately 780 psi. It is our understanding that the maximum design basis Δp during LOCA is 900 psi as reported in FPL Report L-78-162, dated May 4, 1978. Appropriate justification should be provided if less than 900 psi is to be used in establishing the maximum wall requirement.

Our estimate of an average incremental increase in wastage of 13% (steam generator B, hot leg) over the last 4.75 months of operation, is based upon a direct comparison of May and December, 1980 eddy current readings (which we obtained by telephone) for tubes found to be pluggable in December 1980. The licensee may wish to submit additional data and analysis in the February 28 submittal to provide a reassessment of the current rate at which tube wastage is occurring. This might include, for example, a refined evaluation of the December 1980 eddy current tapes, and those from previous inspections, to eliminate the influence of denting signals on the defect signal.

Although not required for the February 28, 1980 submittal, the licensee also should submit in his proposed inspection program (to be submitted 30 days prior to the next scheduled shutdown) what action will be taken to insure that all tubes

previously identified to contain >20% indications will be reinspected in accordance with Regulatory Guide 1.83. It is our understanding, again based upon phone conversations, that a few tubes which should have been inspected in April 1979 and May 1980 may actually not have been.

Finally, when reporting the results of the next steam generator inspection, the licensee should provide an assessment of rate of wastage degradation. If these rates suggest more than an average 10% incremental wastage degradation may occur during the next operating interval, the licensee should submit justification for the implemented plugging limits which fully addresses the criteria in Regulatory Guide 1.121.