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 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
 AUTH. NAME AUTHOR AFFILIATION  
 WILLIAMS, J.W. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION  
 VARGA, S.A. Operating Reactors Branch 1

SUBJECT: Forwards "PWR Lattice Physics Methods at Florida Power & Light Co." Rept documents benchmarking for methodology used to obtain lattice physics parameters for pressurized thermal shock issue.

*"see repts"*  
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*Rec'd w/ check \$5,200.*

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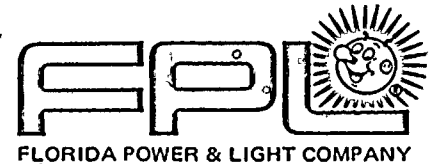
1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

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May 10, 1984  
L-84-125

Office of Nuclear Regulation  
Attention: Mr. Steven A. Varga  
Chief Operating Reactors Branch #1  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C.

Subject: Turkey Point Units 3 & 4  
Docket Nos. 50-250, 50-251  
Pressurized Thermal Shock

- Reference: 1. Florida Power & Light Company Vessel Flux Reduction Program presentation. Letter from R.E. Uhrig (FPL) to S.A. Varga (USNRC), March 25, 1983 L-83-180.
2. Pressurized Thermal Shock - Near Term Flux Reduction Program Turkey Point Plant Units 3 and 4. Letter from S.A. Varga to R. E. Uhrig, November 17, 1983.

Dear Mr. Varga:

The attached Topical Report PWR Lattice Physics Methods At Florida Power & Light Company (forty copies) is submitted for your review and approval.

This report is the first in a series of topical reports on FPL reactor physics methodology in support of vessel flux reduction commitments (Reference 1) relative to the Pressurized Thermal Shock (PTS) concerns at Turkey Point Units 3 and 4 (Docket Nos. 50-250 and 50-251). Specifically, FPL is committed to evaluating vessel flux resulting from core fuel management alternatives. The methods used in these evaluations are being documented by this series of Topical Reports.

The first report documents the CHEETAH lattice physics methodology in use at FPL as a Lattice Physics Topical Report. The specific purpose of this topical is to document the benchmarking for the methodology used to obtain lattice physics parameters for fuel and light absorber nuclides in FPL pressurized water reactor cores.

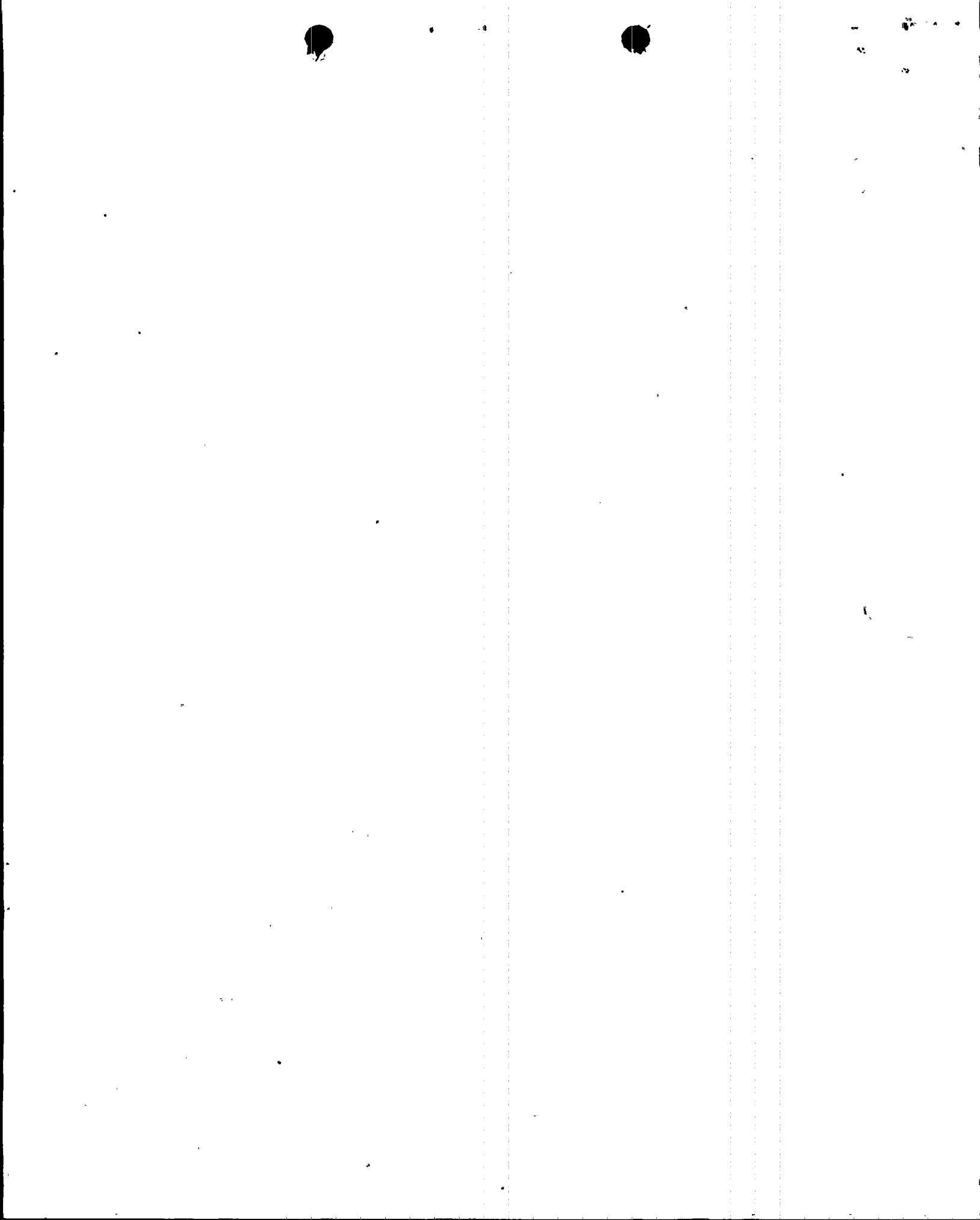
The next topical report will support the FPL PDQ-7 model for use in core analysis and prediction of pin powers. The third topical will support the actual vessel flux transport methods using DOT 4.3. The vessel flux will be evaluated for the two Turkey Point Units on a cycle by cycle basis to determine and maintain the flux reduction required to alleviate PTS concerns.

This FPL Lattice Physics Model is used as the basis for generation of data requested (Reference 2) for vessel flux reduction verification for Turkey Point Units 3 and 4.

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It is our intention to use the FPL Lattice Physics Model for development of input data for use in future safety-related licensing applications associated with Turkey Point Units 3 and 4 (Docket Numbers 50-250 and 50-251 respectively) and St. Lucie Units 1 and 2 (Docket Numbers 50-335 and 50-389 respectively). Review and approval for licensing applications on these Docket Numbers is requested by October 1, 1984.

We have determined that this request for approval involves Class III and three Class I fees. Accordingly, a check for \$5,200 is enclosed.

Very truly yours,

*for J.W. Williams, Jr.*  
J.W. Williams, Jr.  
Vice President, Nuclear Energy

Attachments

cc: J.P.O'Reilly, Region II  
Harold F. Reis, Esquire  
PNS:L1-83-154-1

