#### September 4, 2001

MEMORANDUM TO: Stuart A. Richards, Director

Project Directorate IV

Division of Licensing Project Management Office of Nuclear Reactor Regulation

FROM: Robert M. Pulsifer, Project Manager, Section 2 /RA/

Project Directorate I

Division of Licensing Project Management Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING WITH THE GE NUCLEAR ENERGY

(GENE)

On August 16, 2001, members of the staff met with the GENE to discuss their Part 21 notification, "Stability Reload Licensing Calculations Using Generic DIVOM Curve," dated June 29, 2001 (ADAMS accession number ML012120034). A list of attendees and their affiliations is provided as Attachment 1. A copy of the handouts provided by GENE for their presentation can be found in ADAMS under accession number ML012290135.

In their presentation GENE briefly discussed their stability detect and suppress (D&S) solutions developed by GENE and the Boiling Reactor Owners Group (BWROG). These solutions meet General Design Criterion (GDC) -12 requirements and would cause an anticipated scram to provide minimum critical power ratio (MCPR) safety limit protection for anticipated reactor instability. The D&S solutions were identified as Options III, I-D, and II. The Part 21 notification has a potential to violate the MCPR safety limit for Option III if an event initiates from limiting conditions, the event results in an oscillation, and the oscillation is regional. GENE stated that the automatic trip still functions, there is no threat to fuel damage, and there is no threat to public health and safety.

GENE said that the root cause came from three areas:

- Inadequate understanding of physical phenomena resulted in underestimating the impact of a key parameter (peak bundle power);
- Limiting radial power distribution cases produced non-symmetric oscillations (until flow perturbation method developed) and were not included in the data base; and
- Believed that restrictive power/flow conditions, sensitivity studies, and normalization of curves fully addressed current operating conditions.

GENE has developed an interim solution for affected plants and will do a detailed review of the issue and approach with the BWROG.

A final Part 21 response will be provided by GENE by August 31, 2001. GENE anticipates that by the 3<sup>rd</sup> quarter of 2002 they will issue revised licensing documentation with a projected staff approval by year's end.

Project No. 710

Attachment: Meeting Attendees

cc w/attachment: See next page

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Attachment: Meeting Attendees

cc w/attachment: See next page

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## ACCESSION NO.: ML012470385 Notice No.: ML012130041 PKG. No.: ML012470429

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GE Nuclear Energy Project No. 710

CC:

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Mr. Charles M. Vaughan, Manager Facility Licensing Global Nuclear Fuel P.O. Box 780 Wilmington, NC 28402

Mr. Glen A. Watford, Manager Nuclear Fuel Engineering Global Nuclear Fuel P.O. Box 780 Wilmington, NC 28402

# MEETING WITH GE NUCLEAR ENERGY (GENE)

### AUGUST 16, 2001

## **ATTENDANCE LIST**

### **GENE**

- A. Chung
- J. Post

# **BOILING WATER REACTOR OWNERS GROUP (BWROG)**

- J. Kenny, PPL
- C. Lehmann, PPL

## **PSEG**

- D. Notigan
- S. Peng

## **EXELON**

- M. Taylor
- M. May

## **NRC**

- R. Pulsifer
- S. Dembek
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- R. Caruso
- T. Huang