

March 22, 2001

Mr. Gary Van Middlesworth  
Site General Manager  
Duane Arnold Energy Center  
Nuclear Management Company, LLC  
3277 DAEC Road  
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER - NUCLEAR REGULATORY  
COMMISSION (NRC) STAFF AUDIT OF SELECTED DESIGN ANALYSIS IN  
SUPPORT OF THE PROPOSED EXTENDED POWER UPRATE PROGRAM  
(TAC NO. MB0216 )

Dear Mr. Van Middlesworth:

As part of our review of your application, dated November 16, 2000, for a license amendment in support of the proposed extended power uprate program at the Duane Arnold Energy Center (DAEC), we are planning to conduct an audit on March 26-29, 2001, at the General Electric Company offices in Wilmington, North Carolina. The following areas will be reviewed during this audit:

1. Fuel performance information for GE14 fuel (i.e., applicable post-irradiation examination data).
2. Compliant information for GE14 fuel with respect to the conditions stated in the approved topical reports NEDC-32601P, NEDC-32694P, and NEDC-32505P, Rev 1.
3. Database for developing the GEXL14 correlation for the GE14 fuel (i.e., review of collected data with respect to the operational ranges of the correlation and the statistical aspects of the database).
4. Design record files for both pre-uprate and post-uprate loss-of-coolant accident analysis.
5. Post-uprate anticipated-transient without scram analysis
6. Application of ODYSY to Option 1D. This would include review of DAEC's implementation of Option 1D with regard to: (1) operating experience with having any thermal-hydraulic incompatibilities between different fuel types at low-flow/high power conditions, where the void distributions are significantly different from normal; (2) applicability of Option 1D to the GE14 mixed core; and (3) impact on core stability due to the mixed core with respect to reactor scrams.

G. Van Middlesworth

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The audit team will consist of the following staff members from the Reactor Systems Branch in the Office of Nuclear Reactor Regulation: Anthony Ulses, Tai Huang, Edward Kendrick, and Anthony Attard.

The preceding information was provided to both your staff at the DAEC and the GE personnel. Please let me know, if you have any questions regarding the subject audit.

Sincerely,

***/RA by Tae Kim for/***

Darl S. Hood, Senior Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-331

cc: See next page

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Duane Arnold Energy Center

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