



EN 39806

April 28, 2003  
MFN 03-030

Document Control Desk  
United States Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

**Subject: Interim Surveillance Program for Fuel Channel Bow Monitoring**

**Reference:** Letter from Jason Post (GENE) to USNRC, "Part 21 Notification: Fuel Channel Bow Reportable Condition and 60-Day Interim Notification", MFN 03-012, March 3, 2003

The reference letter provided notification by GE Nuclear Energy (GENE) in accordance with 10CFR21.21(a)(1) of a Reportable Condition for thermal limits calculations for BWR/6 plants with Global Nuclear Fuel (GNF) Zr-2 thick/thin fuel channels and a 60-Day Interim Notification in accordance with §(a)(2) for two issues, (1) thermal limits calculations for non-BWR/6 plants with the same fuel channels (to be completed by June 6, 2003), and (2) control rod-fuel channel interference for both BWR/6 and non-BWR/6 plants with the same fuel channels (to be completed by April 28, 2003). With respect to the control rod-fuel channel interference, the reference letter contained a commitment to provide interim recommendations for surveillance actions to detect control rod-fuel channel interference and determine when the friction associated with the interference is sufficient to cause a concern with control rod insertion, fuel bundle lift or loads on reactor internals.

The control rod-fuel channel interference evaluation has been completed. It determined that BWR/6 and BWR/4 & 5 C-lattice plants with GNF thick/thin channels potentially have increased channel bow that can impact fuel bundle lift, loads on reactor internals, and control rod operability. An interim surveillance program has been developed to augment the surveillance requirements in the plant Technical Specifications until other actions, which mitigate or limit the potential for control rod-channel interference due to channel bow can be identified and implemented. The recommendations address the extent and frequency of surveillance actions, and the plants to which they should be applied. This surveillance program provides early indication of potentially degraded operational performance and assurance that action is taken before reaching excessive levels of control rod friction. This surveillance plan is limited to BWR/6 and BWR/4&5 C-lattice plants with GNF thick/thin channels and GE control rods. There have been no

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indications of operational or scram problems on BWR/2, 3 and 4 D-lattice plants, and as a result, they are excluded from the interim surveillance program.

This transmittal contains GE-NE proprietary information, which GE-NE customarily maintains in confidence and withholds from public disclosure.

The enclosed affidavit identifies that the designated information has been handled and classified as proprietary to GE-NE. Along with the affidavit this information is suitable for review by the NRC. GE-NE hereby requests that the designated information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790 and 9.17.

Please contact me if you have any questions on this information at (408) 925-5362.

Sincerely,



Jason S. Post, Manager  
Engineering Quality and Safety Evaluations

Attachments:

1. Plants Recommended for Surveillance Program
2. Interim Surveillance Plan for GNF Thick/Thin Channel Bow Monitoring for BWR/6 Plants
3. Interim Surveillance Plan for GNF Thick/Thin Channel Bow Monitoring for BWR/4 and 5 C-Lattice Plants
4. Affidavit, James F. Klapproth, dated April 28, 2003

cc: S. D. Alexander (NRC-NRR/DISP/PSIB) Mail Stop 6 F2  
J. F. Foster (NRC-NRR/DRIP/RORP) Mail Stop 12 H2  
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J. F. Klapproth (GENE)  
H. J. Neems (GENE)  
B. J. Erbes (GENE)  
PRC File

**Plants Recommended for Surveillance Program**

**ATTACHMENT 1**

	<u>Utility</u>	<u>Plant</u>
<u>X</u>	AmerGen Energy Co.	Clinton
<u>      </u>	AmerGen Energy Co.	Oyster Creek
<u>      </u>	Carolina Power & Light Co.	Brunswick 1
<u>      </u>	Carolina Power & Light Co.	Brunswick 2
<u>      </u>	Constellation Nuclear	Nine Mile Point 1
<u>X</u>	Constellation Nuclear.	Nine Mile Point 2
<u>X</u>	Detroit Edison Co.	Fermi 2
<u>      </u>	Dominion Generation	Millstone 1
<u>      </u>	Energy Northwest	Columbia
<u>      </u>	Entergy Nuclear Northeast	FitzPatrick
<u>      </u>	Entergy Nuclear Northeast	Pilgrim
<u>X</u>	Entergy Operations, Inc.	Grand Gulf
<u>X</u>	Entergy Operations, Inc.	River Bend
<u>      </u>	Entergy Nuclear Northeast	Vermont Yankee
<u>      </u>	Exelon Generation Co.	CRIT Facility
<u>      </u>	Exelon Generation Co.	Dresden 2
<u>      </u>	Exelon Generation Co.	Dresden 3
<u>X</u>	Exelon Generation Co.	LaSalle 1
<u>X</u>	Exelon Generation Co.	LaSalle 2
<u>X</u>	Exelon Generation Co.	Limerick 1
<u>X</u>	Exelon Generation Co.	Limerick 2
<u>      </u>	Exelon Generation Co.	Peach Bottom 2
<u>      </u>	Exelon Generation Co.	Peach Bottom 3
<u>      </u>	Exelon Generation Co.	Quad Cities 1
<u>      </u>	Exelon Generation Co.	Quad Cities 2
<u>X</u>	FirstEnergy Nuclear Operating Co.	Perry 1
<u>      </u>	Nebraska Public Power District	Cooper
<u>      </u>	Nuclear Management Co.	Duane Arnold
<u>      </u>	Nuclear Management Co.	Monticello
<u>      </u>	Pooled Equipment Inventory Co.	PIM
<u>X</u>	PPL Susquehanna LLC.	Susquehanna 1
<u>X</u>	PPL Susquehanna LLC	Susquehanna 2
<u>X</u>	Public Service Electric & Gas Co.	Hope Creek
<u>      </u>	Southern Nuclear Operating Co.	Hatch 1
<u>      </u>	Southern Nuclear Operating Co.	Hatch 2
<u>      </u>	Tennessee Valley Authority	Browns Ferry 1
<u>      </u>	Tennessee Valley Authority	Browns Ferry 2
<u>      </u>	Tennessee Valley Authority	Browns Ferry 3