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From:

David Lochbaum

TACs:

MC8035

To:

Richard Ennis

***** YELLOW *****

For Signature of:

Routing:

Dyer
Borchardt
Sheron
NRR Mailroom

Description:

GE's Nuclear Band-Aids for Vermont Yankee

Assigned To:

DLPM

Contact:

MARSH, LEDYARD (TAD) B

Special Instructions:



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

July 29, 2005

Richard B. Ennis, Senior Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Earth

SUBJECT: GE'S NUCLEAR BAND-AIDS FOR VERMONT YANKEE

Dear Mr. Ennis:

Unable to satisfy the NRC staff's concerns about the computer methodology employed by the General Electric Company (GE) in thermal hydraulic analyses of Vermont Yankee at extended power uprate (EPU) conditions in time to meet its own arbitrary schedule pressures, Entergy Nuclear Vermont Yankee, LLC (ENVY) proposed during the June 30, 2005, meeting to apply a "nuclear band-aid" in the form of a temporary license condition increasing the minimum critical power ratio (MCPR) margin by 0.02 (slide 6 from ADAMS Accession No. ML051820135).

There was no talk during this meeting (or at least during the limited portion of this meeting that members of the public were allowed to observe) and there is no documentation found in ADAMS regarding ENVY's treatment of the other GE "nuclear band-aid" involving MCPR margin. By letter dated July 14, 2005 (ADAMS Accession No. ML052000328), GE informed the NRC staff about its recommended surveillance program to prevent excessive control rod friction caused by interference between the fuel channel and the control rod blade. Attachment 1 to this GE letter clearly indicates that Vermont Yankee is one of the reactors needing to implement this surveillance program.

Reference 1 to the July 14th GE letter is a formal notification to NRC made by GE in accordance with 10 CFR Part 21. That Part 21 notification is dated March 3, 2003 (ADAMS Accession No. ML031420086). GE reported discovering a phenomenon increasing the potential for fuel channels to bow and interfere with control rod insertions. GE informed NRC that "Absent a detailed plant-specific calculation, a generic interim penalty of 0.02 on the Operating Limit MCPR (OLMCPR) is recommended."

If I understand the GE Part 21 letters properly, the 0.02 MCPR penalty proposed in March 2003 was an interim measure to be used until a long-term solution was found and implemented. The surveillance program transmitted to the NRC in July 2005 is the long-term solution and, once implemented, eliminates the need for that 0.02 MCPR penalty. However, it is not apparent from a review of the publicly available record that ENVY has committed to the surveillance program recommended by GE.

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If the NRC staff feels it is necessary to apply the "nuclear band-aid" sought by ENVY during the June 30, 2005, public meeting, it seems appropriate from both a legal and safety perspective that the license condition either impose a 0.04 MCPR penalty (i.e., 0.02 for the Part 21 safety issue and 0.02 for the EPU analytical methods issue) or impose a 0.02 MCPR penalty along with a requirement that the surveillance program recommended by GE to protect against fuel channel/control rod interference be fully implemented.

Please note that UCS is not petitioning the NRC under 2.206 seeking to compel ENVY to take this action and UCS is not making an allegation to the NRC that ENVY is not implementing the GE recommended surveillance package. Instead, UCS is sharing our insights with the NRC on what should be done. We reserve the right to submit a later 2.206 petition should the final "nuclear band-aids" not fully cover the wound.

Sincerely,

A handwritten signature in black ink, reading "David A. Lochbaum". The signature is written in a cursive, flowing style.

David Lochbaum
Nuclear Safety Engineer