

April 28, 2006

Mr. David A. Christian
Senior Vice President
and Chief Nuclear Officer
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5000 Dominion Boulevard
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SUBJECT: NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2, SURRY POWER STATION, UNIT NOS. 1 AND 2, KEWAUNEE POWER STATION, AND MILLSTONE POWER STATION, UNIT NOS. 2 AND 3 - REQUEST FOR ADDITIONAL INFORMATION (RAI) ON PROPOSED TOPICAL REPORT DOM-NAF-3 (TAC NOS. MC8833, MC8834, MC8835, MC8836, MC8831, AND MC8832)

Dear Mr. Christian:

By letter dated November 1, 2005, Virginia Electric and Power Company, Dominion Nuclear Connecticut, Inc., and Dominion Energy Kewaunee, Inc., submitted proposed Topical Report DOM-NAF-3, "GOTHIC Methodology for Analyzing the Response to Postulated Pipe Ruptures Inside Containment." The Nuclear Regulatory Commission (NRC) staff is reviewing the submittal and has determined that additional information is required to complete its review.

The NRC staff's RAI is enclosed. Your staff is requested to provide a response to the RAI within 30 days.

Sincerely,

/RA/
Stephen Monarque, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-338, 50-339, 50-280,
50-281, 50-305, 50-336, and 50-423

Enclosure: RAI

cc w/encl: See next page

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NRR-088

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REQUEST FOR ADDITIONAL INFORMATION

TOPICAL REPORT DOM-NAF-3, "GOTHIC METHODOLOGY FOR ANALYZING THE RESPONSE TO POSTULATED PIPE RUPTURES INSIDE CONTAINMENT"

By letter dated November 1, 2005, Virginia Electric and Power Company, Dominion Nuclear Connecticut, Inc., and Dominion Energy Kewaunee, Inc. (the licensees), submitted proposed Topical Report DOM-NAF-3 for the Nuclear Regulatory Commission (NRC) staff's review and approval. The licensees are requested to respond to the following questions.

1. In Section 2.2 of DOM-NAF-3, the licensees stated that "[f]or containment modeling, [it] has selected correlations that have been previously approved by the NRC and has confirmed the applicability of the models to large, dry PWR [pressurized water reactor] containments. For calculation of post-reflood mass and energy release, a simplified GOTHIC model of the reactor coolant system (RCS) and steam generator secondary side has been developed and coupled to the containment. ... Framatome recently received NRC approval for use of a coupled mass and energy release model .."

For all of the intended GOTHIC applications listed in Section 2.3, please identify those modeling techniques and assumptions (if there are any) that are different from what was previously reviewed and approved by the NRC staff, which requires the NRC staff's prior approval. For example, what makes your post-reflood mass and energy release model different (less conservative) from that approved for Framatome. Be specific and provide justification where appropriate.

2. Provide nodal diagrams that show the GOTHIC control volumes, junctions,.. etc., described in Section 4.2.1 for the demonstration analyses performed for Surry Power Station, Unit Nos. 1 and 2.

Enclosure

Surry Power Station, Units 1 & 2

cc:

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North Anna Power Station, Units 1 & 2

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