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To: Dyer, NRR
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AUTHOR: Tom Gurdziel

AFFILIATION: NY

ADDRESSEE: Bill Levis

SUBJECT: Hope Creek

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Chairman Nils J. Diaz

FYI

Mr. Dudgeon

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NYC
7/16/05

9 Twin Orchard Drive
Oswego, NY 13126
July 16, 2005

Mr. Bill Levis
Chief Nuclear Officer
PSEG Nuclear LLC
PO Box 236
Hancocks Bridge, NJ 08038-0236

Dear Mr. Bill Levis:

Could I bring another Hope Creek topic or two to your attention?

Snubbers

Have you considered the possibility that, when the reactor recirc pumps were required to be reduced in speed, the snubbers locked up and stayed locked up? (I don't believe the snubbers are supposed to act that way, but when you tested them, they all failed (if I recall correctly.) If so, the resulting system critical frequency might be somewhat altered.

Allowable recirc pipe vibration

I am quite uneasy with you using the piping designer (GE) to tell you that the recently measured recirc piping vibration is acceptable. Considering that it has been common to find broken pieces of equipment in your Hope Creek drywell, it is my opinion that the recirc piping vibration there is excessive. I also think that the two or three failed accelerometers should have been replaced, because I think they probably failed due to excessive vibration.

I think you needed to use an independent consultant (which you did) and specify that they would have to determine the allowable vibration at each vibration sensor (not the piping design company.) Additionally, the calculated vibration should also have been calculated based on the nearest snubbers locked up. The most limiting vibration limit should then have been chosen for each sensor point.

(For a similar example: if a piece of 2 by 4 lumber with a uniform load spanned 10 feet, you might expect a certain amount of deflection, say 1 inch in the center. However, if the same 2 by 4 is restrained (supported) every 2 feet, the 1 inch value would be way past the amount acceptable.)

Let me try to say it this way: I think you used values that would have been applicable if no snubber was locked up when, actually, all snubbers were locked up. (The acceptance values used were inappropriate for the actual conditions in your drywell.)

CHAIRMAN REC'D

Finally

One final thought. Have you made use of any Operations Assessments by INPO related to NRC Information Notice 95-16: Vibration Caused by Increased Recirculation Flow in a Boiling Water Reactor? (It references Susquehanna Unit 2 in 1994, Browns Ferry Unit 2 in 1992, Quad Cities Unit 2 in 1989, and Hope Creek on September 18, 1987.) Wouldn't this seem to be a generic (BWR3/BWR4) problem?

Yours truly,

Tom Gurdziel

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