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March 17, 1986

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Generic Letter 83-08
Request for Additional Information
Dresden and Quad Cities Station
NRC Docket Nos. 50-237/249 and 50-254/265

- Reference (a): December 26, 1985 J. A. Zwolinski letter
to D. L. Farrar
- (b): Mark I Wetwell to Drywell Vacuum Breaker Load
Methodology, Revision 0, Continuum Dynamics, Inc.
Report No. 84-3, February 1984
- (c): Response to NRC Request for Additional
Information on Mark I Containment Program Wetwell
to Drywell Vacuum Breaker Load Methodology,
Revision 0, Continuum Dynamics, Inc. Technical
Note No. 84-11, October 1984
- (d): Mark I Wetwell to Drywell Differential Pressure
Load and Vacuum Breaker Response for the Dresden
Nuclear Power Station Units 2 and 3, Revision 0,
Continuum Dynamics, Inc. Technical Note No.
84-30, January 1985.
- (e): Mark I Wetwell to Drywell Differential Pressure
Load and Vacuum Breaker Response for the Quad
Cities Station Units 1 and 2 Revision 0,
Continuum Dynamics, Inc. Technical Note 84-16,
January 1985

Dear Mr. Denton:

Reference (a) requested that we respond to three questions concerning the Wetwell-to-Drywell Vacuum Breaker Chugging Methodology which was used for the Dresden and Quad Cities studies. Attachments 1 and 2 to this letter contain the requested information which will enable your staff to complete the evaluation.

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If there are any further questions on this issue, please contact this office.

Enclosed are fifteen copies of the letter with attachment for your use.

Sincerely,

A handwritten signature in cursive script that reads "Greg Alexander".

Greg Alexander
Nuclear Licensing Administrator

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ATTACHMENT 1
Dresden Station Units 2 and 3

Question 1: Is the chugging source rate used in the Dresden evaluation the same as the one developed in C.D.I Report No. 84-3?

Response: Yes. The methodology followed in C.D.I Report No. 84-3 (Ref. b is identical to the methodology used in the Dresden evaluation (Ref. d) and detailed in response to question 5 from the NRC (Ref. c).

Question 2: Did the Dresden calculation apply the 1.07 load factor to account for the uncertainty in calculating the underpressure?

Response: A load factor used to assure conservative prediction of the underpressure and detailed in response to question 2 from the NRC (Ref. c), was applied to the Dresden evaluation (Ref. d). In fact the load factor used in the plant unique evaluation was 1.06 and yields a conservative prediction of the underpressure.

Question 3: Did the Dresden calculation use the drywell model which resulted in the most conservative prediction?

Response: Yes. Drywell modeling was examined in response to question 6 from the NRC (Ref. c). For the Dresden evaluation (Ref. d), the capacitance model results in a more conservative forcing function, and was therefore used.

Attachment 2
Quad Cities Station Units 1 and 2

Question 1: Is the chugging source rate used in the Dresden evaluation the same as the one developed in C.D.I Report No. 84-3?

Response: Yes. The methodology followed in C.D.I Report No. 84-3 (Ref. b is identical to the methodology used in the Quad Cities evaluation (Ref. e) and detailed in response to question 5 from the NRC (Ref. c).

Question 2: Did the Quad Cities calculation apply the 1.07 load factor to account for the uncertainty in calculating the underpressure?

Response: A load factor used to assure conservative prediction of the underpressure and detailed in response to question 2 from the NRC (Ref. c), was applied to the Quad Cities evaluation (Ref. e). In fact the load factor used in the plant unique evaluation was 1.06 and yields a conservative prediction of the underpressure.

Question 3: Did the Quad Cities calculation use the drywell model which resulted in the most conservative prediction?

Response: Yes. Drywell modeling was examined in response to question 6 from the NRC (Ref. c). For the Quad Cities evaluation (Ref. e), the acoustic volume model results in a more conservative forcing function, and was therefore used.