

Commonwealth Edison Company
Braidwood Generating Station
Route #1, Box 84
Braceville, IL 60407-9619
Tel 815-458-2801

June 27, 1997



Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Additional Information Requested during NRC Predecisional Enforcement Conference
Braidwood Nuclear Power Station Units 1 and 2
NRC Docket Numbers 50-456 and 50-457

Reference: 1) Request for Information letter from J. A. Grobe to H. G. Stanley dated May 19, 1997.
2) NRC Predecisional Enforcement Conference held on May 14, 1997.

Reference 1 refers to a Request for Information (RAI) which was generated after the recent NRC Predecisional Enforcement Conference (Reference 2) held on Appendix R issues and the fire protection program. Five items are attached to this letter which collectively respond to the ten questions in the RAI. Attachments 1 and 2 provide the information requested in the RAI. Attachment 3 is a more detailed version of an assessment previously provided to the NRC staff. It provides an integrated discussion of the safe shutdown impact for each of the seven fire zones which result in loss of ventilation systems, and other specific components. Attachments 4 and 5 are room heat-up calculations for the rooms that may have lost ventilation capability as previously described.

The attachments are:

- 1) Braidwood Station Fire Hazards Analysis for Unit 1 Fire Zone 3.2A-1, Non-Segregated Bus Duct Area,
- 2) Braidwood Station Fire Hazards Analysis for Unit 1 and Unit 2 Turbine Building Mezzanine Floor (Fire Zones 8.5-1/8.5-2) and Other Turbine Building Hazards,
- 3) Appendix R Cable Separation Issues Safe Shutdown,
- 4) Calculation BRW-97-0339M, Revision 2, Byron and Braidwood Control Room Heat-up Evaluation, and

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- 5) Calculation BRW-97-0624M, Revision 0, Determination of Division 11 and Division 12 Miscellaneous Electrical Equipment Room Transient Temperature Profile Following a Loss of Ventilation.

The following paragraphs identify where the the information requested by the RAI is provided in the attachments:

1. The requested information is provided in Attachment 1, sections F.1, F.2 and F.3.
2. The requested information is provided in Attachment 1, section F.5.
3. The requested information is provided in Attachment 1, section F.6.
4. The requested information is provided in Attachment 1, section F.4.
5. The requested information is provided in Attachment 1, section F.9.
6. The requested information is provided in Attachment 1, section F.4.C.
7. & 8. The room heat-up calculations previously presented to the NRC for the main control room and the MEERs conservatively were carried out to a time at which the qualification or expected maximum operating temperature for the equipment/components within the rooms was exceeded.

For the main control room, the results previously presented to the NRC indicated that the qualification or maximum operating temperature for equipment within the main control room and AEER would not be exceeded for approximately 1 and 1/2 hours. The calculation originally submitted was a simplified time-dependent energy balance consisting of room total cooling loads and major heat sinks. This calculation was reperfomed utilizing a more detailed model and is provided as Attachment 4 to this submittal. The results indicate that the qualification or maximum operating temperature for equipment within the main control room would not be exceeded for approximately 4 hours. The results also indicate that the qualification or maximum operating temperature for equipment within the AEER would not be exceeded for approximately 3 hours.

For the MEERs, the preliminary results presented to the NRC indicated that the qualification or maximum operating temperature for equipment within the MEERs would not be exceeded for approximately 8 hours. The

heatup calculation is complete and is provided as Attachment 5 to this submittal. The results indicate that the qualification or maximum operating temperature for equipment within the MEERs would not be exceeded for at least 8 hours.

The different times reported for these rooms reflect the different heat loads and physical characteristics, primarily room volume and available heat sinks, which are the input parameters to the calculations which have the most significant impact on the results.

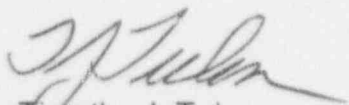
9. The requested information is provided in Attachment 2, section E.

10. The requested information is provided in Attachment 2, section E.

Attachment 3 does not directly answer any of the 10 questions included in the RAI, but we believe that it responds to informal requests by the NRC staff.

If you have any questions on this material, please contact Gene O'Donnell at (815) 458-2801, extension 2550.

Sincerely,



Timothy J. Tulon
Station Manager
Braidwood Nuclear Generating Station

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Attachments

cc w/attach:	R. A. Westberg, Region III
cc w/o attach:	A.B. Beach, NRC Regional Administrator, Region III
	G.F. Dick, Jr., Project Manager, NRR
	C.J. Phillips, Senior Resident Inspector
	F. Niziolek, Division of Eng., Office of Nuclear Safety, IDNS