

September 7, 1988

Mr. L. C. Stalter
Chairman BWOG/ATWS Committee
Davis Besse Nuclear Power Station
5501 North S. R. 2 (Mail Stop 3205)
Oak Harbor, Ohio 43449

Dear Mr. Stalter:

SUBJECT: AUGUST 17, 1988 B&W/NRC ATWS MEETING

The purpose of this letter is to summarize major points addressed during the meeting which was held with the B&W ATWS owners group on August 17, 1988 to discuss the overall ATWS Rule requirements including power supply independence as related to the staff generic B&W ATWS SER.

After a presentation by you and other members of the owners group, the staff provided clarification on various acceptable design options that would resolve the power supply independence issue. We concluded that each licensee should consider each option as it applies at each specific plant. The following options were presented by the staff:

1. Provide a DSS/AMSAC design as depicted in the viewgraph (Figure 1) presented at the meeting. This viewgraph shows the DSS/AMSAC being powered via a 480 volt bus with its own independent (i.e., not associated with the RTS) non-Class 1E battery, rectifier and charger that provide 120 VAC to the ATWS circuitry.
2. Provide a power source to the DSS as discussed above but non-battery backed. In addition, provide a discussion showing that for all loss of offsite power scenarios, the rods will be released through a loss of voltage to the 480 VAC holding mechanism. Furthermore, show that the Emergency Feedwater Initiation and Control System (EFIC) design (or its equivalent) meets the requirements of the ATWS Rule (i.e., show that EFIC and AMSAC are equivalent in that they both perform the same function). If EFIC is powered through RTS 120 VAC buses then show by a failure modes and effects analysis that common mode failures will not propagate through the power supplies and disable both EFIC and the RTS. For this case, the EFIC system has to be a Class 1E system.
3. Provide a Class 1E DSS that is powered by RTS power sources and show through a failure modes and effects analysis that common mode failures will not propagate through the power supplies and disable both DSS and the RTS. EFIC is to be treated as discussed in (2) above.

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Based on our discussions to date, it is apparent that the power supply issue has delayed the implementation of the ATWS system at the B&W plants. We are concerned over this delay and strongly recommend that the B&W licensees proceed with their planned ATWS implementation utilizing the option that will support the quickest resolution of the power supply independence issue. Option 1 will provide the most expeditious resolution and would clearly meet the power supply independence guidance published with the ATWS Rule. The approaches specified in options 2 and 3 are significantly more complex in that they involve the development of specific detailed failure modes and effects analyses. Such approaches could significantly delay resolution of the power supply independence issue (separation issue) and may ultimately lead to non-acceptance by the staff should unacceptable failure modes be identified.

Following receipt of each plant specific "conceptual" design package, the staff plans to review the package within 30 days and to approve, or disapprove with comments, the proposed design. This will be followed by the issuance of a safety evaluation upon receipt of a more detailed design package. Since the generic design review has now been completed and the options for resolving the power supply issue are sufficiently clear, we have concluded that the staff safety evaluation does not have to precede the implementation of the required ATWS equipment. In other words, our safety evaluation would be a "post-implementation" review. All B&W plants, upon receipt of the NRC approval of the conceptual design, should install the ATWS equipment during their next refueling outage. In special cases where this can't be accomplished, it should be brought to the attention of the staff for their review and approval per 10 CFR 50.62(d).

Sincerely,

/s/

Gary Holahan, Acting Director
Division of Reactor Projects - III, IV,
V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
As stated

FIGURE 1

