

February 16, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)
)
METROPOLITAN EDISON COMPANY) Docket No. 50-289
) (Restart)
(Three Mile Island Nuclear)
Station, Unit No. 1))

LICENSEE'S MEMORANDUM OF LAW
REGARDING ALAB-708 ISSUE NO. 9
(RELIANCE ON FEED AND BLEED COOLING)

The testimony of Mr. Jones in response to ALAB-708, Issue No. 9 is in full conformance with the position adhered to by both Licensee and the Staff before the Licensing Board -- that feed and bleed cooling would only be required for a beyond design basis event involving an extended loss of both main and emergency feedwater. However, the Appeal Board, at page 36 and n.76 of ALAB-708, has questioned the consistency of this position, citing previous testimony by various Staff and Licensee witnesses on this subject. Licensee believes the following review and explanation of the cited testimony will show that testimony to be consistent with the stated position of the Staff and Licensee.

The Appeal Board first refers to the testimony of Staff witness Jensen for the proposition that feed and bleed is required, in certain scenarios, to meet 10 C.F.R. § 50.46. The

question posed to Mr. Jensen explicitly assumed that the EFW system was not safety-grade and therefore could not be relied upon. Tr. 5586 (Weiss). Further, implicit in Mr. Jensen's statement was the assumption that the main feedwater system would not be available to remove decay heat through the steam generators. Thus, it is clear that Mr. Jensen was speaking of the same sort of beyond design basis event discussed above -- an extended loss of all feedwater.

ALAB-708 next states that Licensee witness Keaten testified that a supplement to the FSAR contained a discussion of the capability of the feed and bleed mode to assure adequate core cooling. This discussion, however, was again based upon the premise that emergency feedwater was not available -- for, as Mr. Keaten testified, emergency feedwater was not relied upon in the FSAR Chapter 14 safety analyses at that time. Tr. 7805-06 (Keaten). With the modifications made to the EFW system prior to restart, it will be safety-grade for the transients at issue here, and therefore can be relied upon for small break LOCA and main feedwater transient mitigation.

The Appeal Board then refers to three excerpts from the supplemental testimony of Staff witnesses Wermiel and Curry, presented in response to Board Question 6 (Emergency Feedwater Reliability). It is important that the context of this testimony be understood: Messrs. Wermiel and Curry were explaining that, in considering the probability of core damage, one does not look solely to the probability of the failure of

one system (i.e., EFW), but must recognize the existence of other systems to protect against that event. At TMI-1, the Staff recognizes the feed and bleed mode as such an alternative, back-up to the EFW system. Tr. 16,722-24 (Curry); 16,734-35 (Wermiel). That the feed and bleed alternative assumes some added importance in the Staff's view of the reliability of the TMI-1 EFW system, pending the full upgrade of that system, does not conflict with the position that this cooling mode is solely an option to be used in responding to certain beyond design basis events. This position is reinforced by Mr. Wermiel's testimony that the feed and bleed alternative will continue to be available following completion of the EFW system upgrade, but will not result in a relaxation of the Staff's long-term EFW requirements. Tr. 16,853 (Wermiel). Thus, we do not believe that the testimony of Messrs. Curry and Wermiel can be fairly read as stating that feed and bleed is required to meet 10 C.F.R. § 50.46.

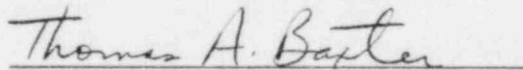
The last two testimony excerpts referenced by the Appeal Board concern the reliance placed on the feed and bleed mode in the event of a main steam line break. As Staff witness Wermiel explained, the EFW system at restart, while safety-grade for feedwater transients and small-break LOCAs, will not be safety-grade for certain main steam line breaks.^{1/} Therefore, until

^{1/} The TMI-2 accident did not involve a main steam line break scenario and thus there are no "Lessons Learned" requirements relating specifically to this type of transient.

the full upgrade of the EFW system is completed, one must postulate a total failure in the event of such an accident, thereby placing reliance on the feed and bleed mode in the interim. Tr. 6200-01 (Wermiel). Mr. Wermiel further explained that, because the probability of such an event is so low, interim reliance on the feed and bleed mode is acceptable. Tr. 6126, 16,868-72 (Wermiel). Again, we do not view this testimony as inconsistent with the position adopted by the Staff and Licensee -- that, for the accidents at issue in this hearing (feedwater transients and small-break LOCAs), feed and bleed is not relied upon to meet the requirements of 10 C.F.R. § 50.46.

Respectfully submitted,

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