

MAR 22 1985

MEMORANDUM FOR: Hugh L. Thompson, Director
Division of Licensing

James P. Knight, Acting Director
Division of Engineering

FROM: Themis P. Speis, Director
Division of Safety Technology

SUBJECT: UNISOLATED LOCA OUTSIDE DRYWELL IN SHOREHAM

The enclosed draft report on unisolated LOCAs outside of the drywell in the Shoreham reactor building is a scoping study to identify high-energy line breaks that are important with respect to isolation requirements. It identified breaks in the RWCU, HPCI, and MSL drain lines as important.

This study used an upper bound assumption that the isolation valves in these lines do not work. The preliminary results of the analysis indicated that the estimate of core-damage frequency for unisolated LOCA outside the drywell at Shoreham assuming that the isolation valves failed to close upon demand is about 2×10^{-5} /reactor-year. If the isolation valves were assumed to close upon demand, the estimate of the core-damage frequency would be about 4×10^{-7} /reactor-year. These frequencies of core damage are predicated upon the assumption that the condensate system can be used to mitigate the consequences of an unisolable large LOCA, with an 80% success rate.

In order for RRAB to complete its review of this issue, it is necessary that DL obtain adequate information from the applicant to support the operability of the valves in the HPCI, RWCU and MSL drain lines under pipe break conditions. This information will need to be reviewed by DE to verify adequacy of the valves' operability. The operability of the isolation valves is important for putting these line breaks in the proper safety perspective.

For further information, contact E. Chow, RRAB, x24727.

8507130394 850426
PDR FOIA
BELAIR85-199 PDR

151

Themis P. Speis, Director
Division of Safety Technology

Enclosure:
As stated

cc: T. Novak

Distribution - next page

OFFICE	A. Schwencer	RRAB:DST	RRAB:DST	RRAB:DST	AD/T:DST	D:DST
SURNAME	M. Caruso	EChow	ABuslik	ATHadani	Frowsome	TSpeis
DATE	R. Wright	3/21/85	3/21/85	3/21/85	3/21/85	3/22/85
	R. Bernero					