

August 20, 1985

MEMORANDUM FOR: Themis P. Speis, Director, Division of Safety Technology,  
Office of Nuclear Reactor Regulation

FROM: Thomas L. King, Chief, ARG, Division of Safety Technology,  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF BRIEFING ON LMR RESPONSE TO A STATION BLACKOUT  
EVENT

On August 8, 1985 DOE and EPRI personnel provided us with a briefing on how LMRs intend to accommodate a station blackout. The requirements and design criteria to be applied to address the station blackout issue were presented as well as plant response to a station blackout event using the Large Scale Prototype Breeder (LSPB) design as an example. The agenda and list of attendees are enclosed. Copies of the handouts from the briefing are available in my office. Significant points from the meeting were:

- 1) The criteria to be applied to the LMR designs are consistent with the requirements that have been developed under USI-A-44 "Station Blackout" for LWRs.
- 2) The plant response to a station blackout event is intended to maintain coolable core geometry. However, loss of plant lifetime is permitted by the designers in the event of a station blackout event.
- 3) LMRs, due to their enhanced natural convection and leak tight, low pressure system properties have a high potential of being able to withstand a station blackout of long duration.

If and when we commit to further interactions in the LMR area it is DOE's intent to formally submit a generic report on LMR station blackout for our review. If you would like to see the handouts from the meeting or discuss any of the above further please let me know.

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PDR GTECI GELA-44  
PDR

15/  
Thomas L. King, Chief  
Advanced Reactors Group  
Division of Safety Technology  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

DIST: Central File  
NRC PDR

ARG r/f  
DST/CHRON

A. Rubin  
M. El-Zeftawy

T. King  
ARG Staff

RD-107-1  
X RD-72-1

OFFICE	ARG:DST:NRR						
SURNAME	TKing/er						
DATE	8/20/85						

Large Scale Prototype Breeder  
DOE/EPRI Meeting with NRC  
Phillips Building - Room P110  
August 8, 1985

AGENDA

Objective: Submission of Safety Discussion Report and Station  
Blackout Safety Report

	<u>Presentation Subject</u>	<u>Responsibility</u>
9:00 - 9:30	Introduction	CoMO
	SDR Overview	CoMO
9:30 - 12:00	Station Blackout Safety Report	RI/W
	- Background and Overall Requirements	<u>W</u>
	- Criteria	<u>W</u>
	- Required Plant Functions including Environmental and Monitoring Requirements	<u>W</u>
	- Evaluation of Plant Response	RI
	RSS	
	SHRS	
	Fuel Handling and Storage	
	- Summary	<u>W</u>
	- Conclusions	<u>W</u>
	- Agreements Requested from NRC	<u>W</u>
12:00 - 1:00	LUNCH	
1:00 - 3:30	General Licensing Discussions (DOE/CoMO/NRC only)	

Enclosure

DOE/EPRI MEETING WITH NRC  
LARGE SCALE PROTOTYPE BREEDER  
AUGUST 8, 1985

ATTENDEES

S. Gray  
E. Gray  
T. King  
S. Sands  
A. Rubin  
T. McIntosh  
G. Sherwood  
W. Kwant  
J. Brunings  
J. Peoples  
B. Horak

ORGANIZATION

EPRI/COMO  
EPRI/COMO  
NRC/NRR  
NRC/NRR  
NRC/NRR  
DOE/NE  
DOE/NE  
General Electric  
Rockwell International  
Westinghouse AESD  
BNL



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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A handwritten signature in cursive script, reading "Thomas L. King", is written above the typed name.

Thomas L. King, Chief  
Advanced Reactors Group  
Division of Safety Technology  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

Large Scale Prototype Breeder  
DOE/EPRI Meeting with NRC  
Phillips Building - Room P110  
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LARGE SCALE PROTOTYPE BREEDER  
AUGUST 8, 1985

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