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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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MEMORANDUM FOR: D. Fischer, Acting Branch Chief, Auxiliary Systems Branch, DSS

FROM: R. Giardina, Auxiliary Systems Branch, DSS

SUBJECT: SUMMARY OF MEETING WITH BNL/WESTINGHOUSE ON STEAM GENERATOR WATER HAMMER

On October 31, 1978, the NRC Staff and the BNL Steam Generator Project Group met with Westinghouse and Duke Power Company in Bethesda. The meeting was held to discuss recommendations for a verification testing program with regard to the consequences of water hammers in split flow preheater steam generator (see enclosure for meeting attendees).

At the meeting we discussed the Westinghouse tests described in the Westinghouse Topic Report WCAP 9232 "High Pressure Water Hammer Test Program for the Split Flow Preheat Steam Generator," and how the information in the report could be used to best resolve the waterhammer problem in steam generators with preheaters. McGuire will be the first plant with a preheater type steam generator to be issued an operating license. The major items discussed at the meeting were (a) standard operating procedures which could allow cold feed water to enter the preheaters (a probable cause of waterhammer) and (b) plant start-up procedures, instrumentation, the piping layout of the main and auxiliary feed system.

As a result of the discussions, the following test will be performed at McGuire to demonstrate that unacceptable waterhammers will not occur in either their steam generators or feedwater lines:

1. The feedwater temperature will be the minimum allowable in the standard operating procedures (approximately 290°F-300°F).

2. Follow standard operating procedure - feeding into the steam generator from the top and switch to the bottom nozzles as specified in the procedures, at the proper power level (25-30% of full power)

3. Notify NRC 24 hours prior to performing the test so that an observer may be present.

Westinghouse was requested to provide the necessary instrumentation for the test which would verify their test results. Duke Power was to determine the instrumentation that could be used and its location for the test as well as to provide the acceptance criteria for the results of the test. BNL would also provide a list of instrumentation that they thought would be necessary to obtain useful test data.

Robert J. Giardina
Auxiliary Systems Branch
Division of Systems Safety

Enclosure:
As stated

cc: See attached list

Westinghouse/NRC/BNL/Duke Power Meeting
October 31, 1978

NRC	Westinghouse	BNL	Duke Power
V. Benaroya	R. Carlson	O. Jones	G. Copp
D. Fischer	W. Lyman	P. Saha	T. Davis
R. Giardina	R. Howard		P. Herran
R. Birkel	G. Butterworth		P. Hildebrandt
C. Burger	E. Somers		
R. Colmar			
B. Buckley			
P. Matthews			
S. MacKay			
L. Kintner			

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