May 6, 1996

Mr. Nicholas J. Liparulo, Manager
Nuclear Safety and Regulatory Analysis
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, Pennsylvania 15230

SUBJECT: PRELIMINARY TEST MATRIX FOR AP600 PASSIVE AUTOCATALYTIC RECOMBINERS

Dear Mr. Liparulo:

Per the request of your staff, enclosed is the preliminary test matrix the Nuclear Regulatory Commission intends to use to evaluate the performance of the passive autocatalytic recombiners. These tests are being conducted at Sandia National Laboratories. The test matrix is preliminary and, therefore, subject to change based on the results of the initial tests.

If you have any questions regarding this matter, you can contact me at (301) 415-1141.

Sincerely,

original signed by:

William C. Huffman, Project Manager
Standardization Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket No. 52-003

Enclosures: As stated

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Mr. Nicholas J. Liparulo
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Docket No. 52-003
AP600

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Preliminary Test Matrix to Evaluate the Performance of PARs

Test Facility: Surtsey at SNL

Test #	Purpose	PAR Scale	Atmosphere
1	Startup	1/2	2 bar air, no steam, .1%, .2%, ...1%, ... 2.0%H_2
2	Startup & performance	"	2 bar air, no steam, .8%, .9%, 1.0%, ... 1.3%H_2
3	"	"	1 bar air, 1 bar steam, .7%, ... 1.3%H_2
4	Scale & performance	1/2	1 bar air, 1 bar steam, continuous injection of H_2 and O_2 until PAR reaches steady state at 2.0%H_2
5	"	1/8	"
6	"	1/4	"

NOTE:

The tests assume removal of the false floor and any structures from the Surtsey facility that are directly under the PAR. The rest of the supports (horizontal and vertical) will remain in place. PAR location about 1 meter above the floor supports.

Enclosure