



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 15, 1995

Mr. Nicholas J. Liparulo  
Nuclear Safety and Regulatory Activities  
Westinghouse Electric Corporation  
P.O. Box 355  
Pittsburgh, Pennsylvania 15230

SUBJECT: RESPONSE TO REQUEST FOR OPINION

Dear Mr. Liparulo:

In your letter of October 23, 1995, you requested that the U.S. Nuclear Regulatory Commission (NRC) issue an opinion letter to Westinghouse indicating the licensability of an increase of 0.6 percent in core power of a facility similar to the South Texas plant. Westinghouse also solicited the NRC's opinion regarding the licensability of a hybrid design proposed for an overseas project. You further state that the proposed hybrid design is similar to a Standardized Nuclear Unit Power Plant System (SNUPPS) with South Texas reactor vessel internals with a 14-foot core length and a rated power of 3823 megawatts thermal (Mwt).

By letters dated September 22, 1994 and October 5, 1995, the staff indicated to Westinghouse that design-basis analyses for the licensing of nuclear power facilities rarely determine the absolute maximum allowable value for operating parameters such as core power level. Analytical models and methodologies used to demonstrate compliance with regulatory criteria introduce conservatisms in the design-basis analyses. In addition, the analyses often include conservative allowances for uncertainties, limits for protection of equipment, and margins for operating flexibility.

The NRC has issued many license amendments to revise operating limits found to introduce undue operational or financial burdens when appropriate analyses have been submitted. NRC approval of such license amendments demonstrates that revisions to initial design-basis assumptions can be found acceptable. With respect to core thermal power level, the NRC has recently approved plant designs at thermal power levels above the power level stated in your letter.

With respect to your first question, it is reasonable that a plant similar in design to South Texas could be licensed with a maximum core power level of 3823 Mwt, based on the conservatisms used for determining the operating limits, NRC's previous reviews of Westinghouse designs, and NRC's previous approvals for increase in allowable core power levels.

Your second question asked if it was reasonable that a plant similar to Sizewell B, but with South Texas reactor internals and a 14 foot core (assuming that plant specific licensing reviews and inspections determined that all current applicable regulatory requirements were met), could be licensed at a maximum core power of 3823 Mwt. If the NRC were licensing such a design, it would evaluate the design against current NRC regulatory requirements and

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Mr. Nicholas J. Liparulo  
Westinghouse Electric Corporation

Docket No. 52-003  
AP600

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Mr. Nicholas J. Liparulo

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Commission policy including, but not limited to, the severe accident policy statement, additional requirements promulgated after the accident at Three Mile Island and identified in 10 CFR 50.34(f), resolution of unresolved and generic safety issues, and as applicable, Commission policy statements regarding standardized power plant designs. If, as you stated, the applicable regulations were met, then it is reasonable to assume this plant could be licensable.

Since this response is offered without such reviews or inspections, it should not be construed as approval or endorsement of similar changes for domestic facilities or standardized designs that have received a final design approval. This response is also limited to the hypothetical licensing of a facility similar to South Texas and to the proposed hybrid design, and does not in any way address the capabilities of power conversion systems or potential deleterious effects such a proposed power increase would have on reactor coolant system materials such as steam generator tubes.

Address any questions regarding this letter to Mr. Michael X. Franovich at (301) 415-8465.

Sincerely,

Original signed by  
Dennis M. Crutchfield, Director  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

cc: See next page

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