



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

October 5, 1995

Mr. Nicholas J. Liparulo
Nuclear Safety Regulatory and Licensing Activities
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355

SUBJECT: LICENSABILITY OF SMALL INCREASE IN RATED THERMAL POWER FOR PROPOSED
UNIT SIMILAR TO SOUTH TEXAS DESIGN

Dear Mr. Liparulo:

In your letter of September 12, 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 an existing domestic plant (South Texas). You further state that the proposed design is similar to a Standardized Nuclear Unit Power Plant System (SNUPPS) with South Texas reactor vessel internals with its 14-foot core length; the staff considers this a hybrid design. The staff's response to your request is limited to the feasibility of a small increase in thermal power for a facility similar to South Texas, but does not extend to the hybrid design described above. The NRC has issued several license amendments to Westinghouse plants approving increases in the maximum allowable core power level. The Callaway Plant and Wolf Creek Generating Station (SNUPPS facilities) are examples of said power level increases.

As noted in my letter of September 22, 1994, 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. Instead, the analyses assume values for a large number of parameters related to normal plant operations and accident conditions. The design-basis analyses demonstrate that a plant's response to anticipated transients and design-basis accidents meets minimum regulatory criteria established to protect public health and safety. The assumptions made in the analyses become operating limits as part of the licensing process. Additional conservatism are introduced by the analytical models and methodologies used to demonstrate compliance with regulatory criteria. 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 those limits found to introduce undue operational or financial burdens. The submittal and subsequent NRC approval of such license amendments demonstrate that revisions to initial design-basis assumptions can be found to be acceptable. The increase in maximum allowable core power for Callaway and Wolf Creek are examples of this type of revision to limits in the operating license.

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The above areas of conservatism in determining operating limits, the NRC review of Westinghouse plants such as Wolf Creek and Callaway, and amendments to increase the allowable core power indicate that it is reasonable that a plant similar in design to South Texas could be licensed with a maximum core power of 3823 Mwt.

Although the proposed plant is said to be similar to the South Texas plant design (a hybrid design of South Texas features combined with SNUPPS features), licensability would, of course, depend on specific reviews and inspections to ensure that all applicable regulatory requirements, including those developed after the licensing of South Texas, were satisfied. If the proposed design were submitted to the NRC for approval, it would be evaluated against current NRC regulatory requirements and 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 nuclear power plant designs.

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 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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Mr. Nicholas J. Liparulo
Westinghouse Electric Corporation

cc: Mr. B. A. McIntyre
Advanced Plant Safety & Licensing
Westinghouse Electric Corporation
Energy Systems Business Unit
P.O. Box 355
Pittsburgh, PA 15230

Mr. M. D. Beaumont
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
One Montrose Metro
11921 Rockville Pike
Suite 350
Rockville, MD 20852

Mr. Sterling Franks
U.S. Department of Energy
NE-42
Washington, DC 20585

Mr. Frank A. Ross
U.S. Department of Energy, NE-42
Office of LWR Safety and Technology
19901 Germantown Road
Germantown, MD 20874