



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

MAR 01 1979

NRC PDR

Docket No. 50-549

Mr. George T. Berry
General Manager & Chief Engineer
Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Dear Mr. Berry:

SUBJECT: ANTICIPATED TRANSIENTS WITHOUT SCRAM - GREENE COUNTY NUCLEAR
POWER PLANT

Potential modifications to nuclear reactor facilities that may be necessary to resolve staff concerns have been identified in a Staff Report, "Anticipated Transients Without Scram for Light Water Reactors," NUREG-0460, Volume 3, December 1978. For the Greene County Nuclear Power Plant, these modifications are:

- (1) Provision of diverse actuation circuitry for mitigating systems. This diversity can be attained by implementation of (a) or (b) below:
 - (a) Provision of a diverse, four-channel backup scram system (BUSS) described by Babcock & Wilcox. It would be diverse and independent from the reactor trip system and would actuate on high pressurizer pressure or level signals. The staff would require that such a system meet IEEE-279.
 - (b) Provision of actuation circuitry for some existing systems (i.e., primary system relief valves, turbine trip and auxiliary feedwater) that is diverse from the reactor scram system.
- (2) Provision of increased pressure relief capacity, through the addition of pressurizer safety valves, sufficient to comply with Service Level C of the ASME Code for the anticipated transients without scram events specified in the next paragraph. Further analysis may show that a larger pressurizer, increased auxiliary feedwater flow rate, or some combination of these designvariables would reduce or substitute for this requirement.

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Mr. George T. Berry

- 2 - FEB 16 1979

- (3) Demonstration of the functionability of valves needed for long-term cooling following conditions calculated for specified anticipated transients without scram events. This demonstration would include the postulated initiating events described in Appendix IV of NUREG-0460, Section IV.2, and prescription four in Table 7 of Appendix VII of NUREG-0460 (99 percent MTC and reliability based failure assumptions).

Volume 3 of NUREG-0460, which describes the rationale for specifying these plant modifications, is currently being reviewed by the Advisory Committee on Reactor Safeguards. The Regulatory Requirements Review Committee has completed its review and concurred with the staff approach described in Volume 3 of NUREG-0460 for the category plant in which the Greene County Nuclear Power Plant falls. Additionally, we plan to issue requests to all reactor vendors to supply generic analyses of anticipated transients without scram mitigation capability and anticipate presenting to the Commission in May 1979 our recommendations for its actions to resolve the anticipated transients without scram issue.

Although deliberations are ongoing, we are concerned that the design of the Greene County Nuclear Power Plant might proceed over the coming months so as to preclude full implementation of the design modifications to satisfy the recommendations in NUREG-0460, Volume 3, should they eventually be adopted by the Commission, either with or without rule making. As indicated in NUREG 0460, Volume 3, the resolution of this issue for the Greene County Nuclear Power Plant may require implementing some or all of the plant modifications of Alternative 4 discussed in NUREG-0460, Volume 3, Section 2.2 and summarized above.

Therefore, provide a commitment that the Greene County Nuclear Power Plant will be designed and constructed such that implementation of the above three potential requirements will not be precluded prior to a final decision on the anticipated transient without scram issue.

Provide your response to this request by February 16, 1979 or, if you cannot meet that date, advise us of a date by when you can provide a response.

If you need additional clarification of this report, please advise us.

Sincerely,



Robert L. Baer, Chief
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cc: See next page

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