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June 13, 1985

DOCKETED
USNRC

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Attention: Docketing and Service Branch

Subject: Proposed Policy for Regulation of Advanced Nuclear Power Plants
Federal Register Notice Volume 50, Number 58, March 26, 1985.

Gentlemen:

This letter provides Bechtel's comments on the Nuclear Regulatory Commission's proposed policy statement for the regulation of advanced nuclear power plants. Bechtel has been involved in the design of nuclear plants for many years. We have had major responsibilities on a number of light water reactor projects as well as many pioneering projects including the Vallecitos Boiling Water Reactor, Peach Bottom Unit 1 and the Fast Flux Test Facility. We are currently involved in a number of programs for advanced light water reactors, gas cooled and liquid metal cooled reactors.

We believe that a policy statement is needed, primarily to clarify the extent to which different reactor systems must comply with the existing body of criteria and regulations which have been developed for light water reactors. We believe that many of the reactor systems being developed today are sufficiently different that new criteria and regulations will be necessary. Our response to the specific questions in the Federal Register Notice is given in the attachment. In general, we encourage the development of much less prescriptive regulations than is now the case, and more reliance on tests and actual demonstration of performance rather than on analysis.

We believe that it is important that the Commission's final policy statement clarify the relationship of the regulations for advanced reactors to the existing regulations for light water reactors. The improvements and simplifications proposed in regulations for these different reactor systems would be equally beneficial for light water reactors. We believe that current

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Proposed Policy for Regulation of
Advanced Nuclear Power Plants

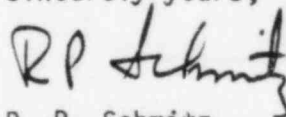
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designs of light water reactors are adequately safe and that major increases in safety margins for future plants are not justified. The intent of the designers of most of the newer systems proposed is to attain a comparable level of safety in a simpler, more demonstrable or more cost effective manner rather than to provide greater margins of safety. A number of NRC administrative procedures changes on issues such as backfitting need to be changed and demonstrated on current plants before new plants of either current or advanced designs can be considered. Any policy statement on the regulation of advanced reactors is incomplete without discussing these points.

We appreciate the opportunity to comment on this proposed policy statement and would be pleased to meet with you or to provide additional details on the points made.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "R. P. Schmitz", with a stylized flourish at the end.

R. P. Schmitz
Chief Nuclear Engineer

RPS:lm
Encl.

BECHTEL COMMENTS ON PROPOSED POLICY FOR REGULATION
OF ADVANCED NUCLEAR POWER PLANTS

Question 1 Should the NRC's approach be revised to be less prescriptive?

We believe that it is desirable to have much less prescriptive regulations for all types of reactors including light water reactors than is now the case. This is particularly true for advanced reactors where the design is very incomplete. Verification of performance criteria should be less difficult than verification of generalized design criteria.

Question 2 Should regulations for advanced reactors require more inherent safety margins?

The margins required by the present regulations have been widely debated and used. There is no reason to apply stricter criteria to new or different designs. In any case, the term "inherent safety margins" needs definition in order to be useful. For example, does it mean margin to meltdown, margins in load combinations or margin in failure criteria?

Question 3 Should licensing regulations mandate simplified designs?

It would be desirable for regulations to allow and encourage simplification, compared to the existing regulations. However, it would be difficult to "mandate" simplification without becoming very prescriptive in the approach.

Question 4 Should regulations for advanced reactors be based on existing regulations?

A new set of design criteria should be established for each new reactor type as the design is developed and experience is gained. This would be desirable to take maximum advantage of the unique features of a particular concept as well as to avoid undesirable carryover from the existing regulations.

Question 5 Should primary safety functions be concentrated in a few systems?

We believe that it is premature and inappropriate for the Commission to favor any particular design approach for advanced reactors based on the number of safety systems .

Question 6 What degree of proof would be sufficient for the NRC on advanced reactors?

Demonstration of safety adequacy needs to be considered in the context of the review of a specific design and developmental plan. We do not believe that it is useful to generalize on the degree of proof that is required.