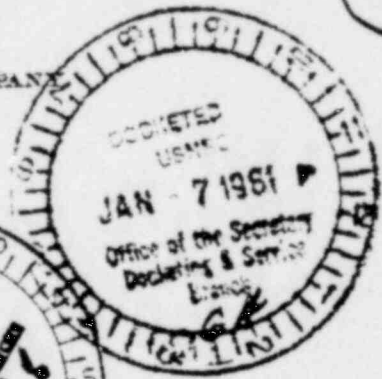


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VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23281

JACK H. FERGUSON  
EXECUTIVE VICE PRESIDENT

December 22, 1980



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

Serial No. 1026  
NO/DWL:mmf

Attention: Docketing and Service Branch

Gentlemen:

PROPOSED RULE PR 50  
45FR65474

PROPOSED CONSIDERATION OF  
DEGRADED OR MELTED CORES IN  
SAFETY REGULATION

In response to the Federal Register notice of October 2, 1980 (45FR65474) inviting comments on the advance notice of proposed rulemaking regarding consideration of degraded or melted cores in safety regulation, the following comments are submitted.

As we indicated in our comment letter on the proposed interim rule related to hydrogen control and certain degraded core considerations dated November 10, 1980 (Serial Number 890), we recommend that an integrated approach be taken to the rulemakings presently being considered by the Commission. These contemplated rulemakings include the development of a safety goal and methodology, degraded core considerations, establishment of minimum engineered safety features, reactor siting, and emergency planning. It is important that decisions related to each of these areas should not be made in isolation.

A significant amount of additional research is needed to establish a technical basis for deciding whether or not to proceed with the presently-contemplated degraded core rulemaking. If it is ultimately decided to proceed, this research and the resulting technical basis would serve the essential function of bounding the scope of the proceeding to those matters of risk significance. A rulemaking proceeding in the absence of such a technical basis would most probably be misdirected and unduly lengthy and the benefits of such a proceeding would clearly fall short of its intended goal.

The technical issues worthy of additional research which are required to establish a sound technical basis for degraded core rulemaking should include, at a minimum, the following general areas:

- o Establishment and implementation of a quantitative safety goal, with acceptable methodologies for its application. This issue is of paramount importance because it could provide both direction to the rulemaking proceeding and assistance to decision making.
- o Identification of dominant risk contributors, by plant class or type, and alternative methods for reducing occurrence probabilities, limiting or accommodating occurrences, or mitigating consequences.

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- o Phenomenology investigations to eliminate or minimize physically unrealistic, arbitrarily conservative assumptions used in analyses. (Candidate issues include steam explosions and fission product release source terms.)
- o Identification of the capabilities of existing engineered safety features to accommodate conditions more severe than those postulated for design purposes.
- o Reducing the uncertainty bands on the results of PRA evaluations.
- o Quantification of risk reductions achieved or achievable within the present licensing framework, guided by safety goal considerations as to their advisability.

It is recommended that realistic or best-estimate analyses should be used to formulate the technical basis for the proposed rule. Additionally, the technical basis for a proposed rule should be well documented and made available for industry and public review.

Questions included in the subject advance notice of proposed rulemaking address specific concerns and design fixes in terms of additional systems, structures, or equipment. We do not believe that such detail is appropriate in an advance notice of proposed rulemaking. Also, the content and thrust of these questions, as well as the underlying philosophy, could change substantially if an established safety goal were assumed as a prerequisite.

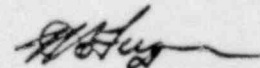
Any final rule on degraded core cooling should be formulated in such a manner as to serve the following functions:

- o Provide a viable technical basis for designs, safety evaluations, and licensing decisions.
- o Reduce regulatory uncertainties.
- o Minimize unnecessary impacts.
- o Be compatible with the implementation framework for a quantitative safety goal.

Such a final degraded core cooling rule should be clearly expressed as criteria and objectives rather than as prescriptive systems or approaches.

We appreciate the opportunity to provide our comments on this advance notice of proposed rulemaking. We will continue to follow this issue and comment as appropriate.

Very truly yours,



J. H. Ferguson  
Executive Vice President  
Power