



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

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OCT 15 1980

MEMORANDUM FOR: Raymond F. Fraley, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Guy A. Arlotto, Director
Division of Engineering Standards
Office of Standards Development

SUBJECT: DRAFT 3 OF REVISION 2 TO REGULATORY GUIDE 1.97,
"INSTRUMENTATION FOR LIGHT-WATER-COOLED NUCLEAR POWER
PLANTS TO ASSESS PLANT AND ENVIRONS CONDITIONS DURING
AND FOLLOWING AN ACCIDENT"

Enclosed for the use of the ACRS Regulatory Activities Subcommittee are fifteen (15) copies of Draft 3 of Revision 2 to Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident", dated October 8, 1980. Also enclosed are fifteen (15) copies of the Value-Impact Statement attached to the guides.

Draft 2 of Revision 2 to Regulatory Guide 1.97, was reviewed by the ACRS Regulatory Activities Subcommittee on August 6, 1980 and by the full ACRS on August 7, 1980. The guide was referred back to the staff to consider the ACRS concerns which were outlined in Chairman Plesset's letter dated August 13, 1980. The following changes to the guide have been made to address these concerns:

- (1) The guide has been modified to eliminate the necessity for many of the footnotes and cross-references which should make the guide more clear.
- (2) The scope of the guide has been reduced to address only instrumentation required by the control room operating personnel. The relationship of the guide to the emergency response facilities will be included in the criteria for those facilities and not in this regulatory guide.
- (3) The six different design and qualification criteria categories have been consolidated into three categories, which will reduce the complexity.

In addition to the above changes, the NRC staff has met with the ANS-4.5 Working Group in an attempt to resolve some of the major differences which existed. The following changes to the guide were made as a result of this effort:

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- (1) Development of Type D and E variable lists as part of ANS-4.5 was deleted. Types D and E variable lists are developed independent of the ANS standard.
- (2) The guide was modified to make it clear that advanced technology in developing accident monitoring information may be used.
- (3) Adjustments were made to the variable lists which added some variables deemed important by the ANS personnel and the NRC staff, and deleted some which were only considered desirable.

Regarding the core exit thermocouples in BWRs, it is believed by some members of the staff that a diverse measurement to coolant level in the reactor is essential in determining the accomplishment of the function of core cooling. Hence, the measurement of core exit temperature is still in the list. The staff is continuing to study the problem and justification of this position will be presented at the ACRS meeting.

The staff believes that the ACRS concerns expressed in Dr. Plesset's letter have been adequately addressed and requests ACRS concurrence in the Regulatory Position of Draft 3.

William Morrison for
Guy A. Arlotto, Director
Division of Engineering Standards
Office of Standards Development

Enclosure: as stated

cc: Public Document Room