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ADVISORY COMMITTEE ON
REACTOR SAFEGUARDS

Mr. Garry G. Young
Advisory Committee on Reactor Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Young:

Subject: Proposed rule entitled "Fire Protection Program for
Nuclear Power Plants Operating Prior to January 1, 1979

Reference: Letter, G. G. Young, ACRS staff, to W. C. Lipinski, ANL,
same subject, dated June 12, 1980

if the proposed rule applies only to nuclear power plants operating prior to January 1, 1979, where do plants that went into operation on or after January 1, 1979 receive their guidance?

The following comments will be identified by the page numbers and paragraphs contained in the document transmitted by the above referenced letter.

Page 15, paragraph c. This paragraph states: "All fire protection modifications identified by the staff as necessary to satisfy criterion 3 of Appendix A to this part whether contained in Appendix R to this part or in other staff fire protection guidance---." Appendix R states: "This Appendix sets forth minimum fire protection requirements---." Based on the statement of paragraph "C", I conclude the Appendix R is to be supplemented by regulatory guides such as R.G. 1.120, "Fire Protection Guidelines for Nuclear Power Plants" and R.G. 1.75 "Physical Independence of Electric Systems." This interpretation is important because Appendix R as it stands does not contain complete guidance and if it were to stand alone as the sole document governing fire protection it is inadequate and should be rewritten, but if the regulatory guides also apply, then Appendix R can stand. Notably one area that Appendix R does not offer guidance is for fire protection in control rooms, computer rooms, and cable spreading rooms whereas R.G. 1.120 does. Another area that is weak in Appendix R is guidance in design features for fire protection whereas R.G. 1.120 offers some specific excellent guidance. Appendix R simply states on page 18, paragraph 1.a: "In situ fire hazards shall be minimized by design and plant arrangement."

Page 18, paragraph 2c. I recommend that paragraph 2c. be moved to follow paragraph 2e. to better establish the role of automatic and manual fire protection systems.

Page 19, paragraph 3. The implementation dates on page 16 refer to "alternate" and "dedicated" shutdown capability. Page 20, paragraph L defines Alternate Shutdown Capability, but dedicated shutdown capability is not defined.

Page 20, paragraph E. The term "safely shut down the reactor" appears in this paragraph and is used throughout the document. The document does not explicitly identify the need to "remove residual heat from the core after reactor shutdown." If "safely shut down the reactor" implies "remove residual heat," I recommend that a definition appear to that effect. If it does not, then the document should be rewritten to add after "safely shut down the reactor" every place it appears, the term "and remove residual heat."

Page 26, paragraph H1. This paragraph calls for "self-contained breathing apparatus with a minimum one-half hour rated capacity" but does not specify how many should be on hand, how many spare gas tanks should be on hand, and whether there should be any on-site provision for refilling the air tanks.

Page 26, paragraph H3. This paragraph discusses "emergency lighting" in terms of fixed installations but does not identify a need for portable emergency lighting equipment.

Page 27, Paragraph I.1.a(7). This paragraph reads: "The proper method for fighting fires inside buildings and confined spaces." I recommend that the word "containment" be added to the statement.

Page 28, paragraph I.1.a. A note follows this paragraph which states: "Items (9) and (10) may be deleted from the training of non-operations personnel who may be assigned to the fire brigade." I recommend that this note be deleted.

Page 29, paragraph I.3. I recommend that the following paragraph be added: "Drills within containment shall be scheduled to correspond to plant refuelling outage."

Page 32, paragraph K.2. I recommend that the last part of the paragraph which permits storage of combustibles in safety-related areas be deleted. The paragraph would read: "Prohibit the storage of combustibles in safety-related areas."

The rule as it stands is understandable if the above recommendations are implemented, but it would be subject to a wide range of interpretations by the licensees. The rule must be supplemented by regulatory guides to reduce the range of interpretations. I would not recommend condensation of the rule. This would lead to even a wider range of interpretations. In order to obtain a better idea as to what is and what is not included in the rule, the ACRS may wish to ask the NRC staff to prepare a comparison of R.G. 1.120 with the rule.

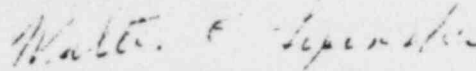
G. G. Young

-3-

June 19, 1980

The ACRS Sequoyah Subcommittee meeting has been scheduled for July 9, 1980 and I plan to attend. If you have any questions on my recommendations, we can discuss them on July 9 or you can call me in advance of your meeting.

Sincerely,



Walter C. Lipinski, Ph.D.
Senior Electrical Engineer
Reactor Analysis & Safety Division

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