

File

SECTIONAL COMMITTEE N6

REACTOR SAFETY STANDARDS

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May 11, 1961

Mr. Harold L. Price, Director
Division of Licensing and Regulations
United States Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Price:

The Steering Committee of the American Standards Association Sectional Committee N6 wishes to establish as a matter of record its general acceptance of the "Proposed Guides" dealing with reactor site criteria which appeared as 10 CFR Part 100 in the February 11, 1961 Federal Register. The Committee feels that the Guides represented are a great improvement over the "Notice of Proposed Rule Making" which was published in 1959. It is especially gratifying that the proposed Guides suggest accidental radiation dosage values for individuals off-site against which to measure adequacy of safeguards in reactor designs.

While it is the consensus of the Steering Committee that, properly administered, the Guide will present an important contribution to the solution of siting problems, the following minor changes and additions are suggested:

1. Where more than one reactor is located at a particular site, the thermal rating used in hazards calculations pertaining to the total installation should lie somewhere between the thermal rating of the largest single reactor and the sum of all reactors present. If there is negligible possibility that an accident in one reactor could cause an accident in another at the same site, then the thermal rating of the largest single reactor should be the value used in hazards calculations.
2. Paragraph 100.3(a) The meaning of "full control of the reactor licensee" should be clarified. "Full control" could be defined as authority to determine all activities on the area including exclusion or removal of personnel or property from the area.

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3. Paragraph 100.3 (c) The "nearest boundary of a densely populated center" is difficult to establish. A clear definition of what constitutes such a boundary should be included. We feel that ultimately a man-rem type of criterion may be established, making this definition unnecessary; however, we do not suggest delaying the issuance of the Guides until such a criterion is established.
4. Paragraph 100.11 (a) (b) Certain passages in these paragraphs, as well as certain phraseology elsewhere in the proposed Guides should be altered to make it clear that the intent of Appendix A is to provide an example of the method and of typical values of certain parameters to be used in the estimation of the three distances specified in the Guides. It should be specifically stated that the numerical values of the parameters given in this example are illustrative only, and that other values may be used if more appropriate to the particular case under consideration. The Committee feels that it would be desirable to include not just one such example but two or more examples, each complete with its own table of distances as a function of reactor power. This would serve to emphasize the illustrative nature of the examples and would prevent the numerical values of the parameters used in them becoming "rules".
5. Appendix A - Paragraph (b) The leak rate from the containment vessels should be considered a time-dependent function related to the pressure within the vessel. The time behavior of the pressure should be taken into account, rather than being considered constant at its maximum value.
6. Appendix A - Paragraph (e) (h) The symbol Q should not be employed for two different factors: It is suggested that the factor in paragraph (h) now designated Q be designated "Q integral".
7. Appendix A - Paragraph (f) A definition of "average worst" weather conditions should be included.

It is assumed that revisions of the Guides will be made on a continuing basis. The N6 Steering Committee suggests the following items be considered for incorporation into subsequent revisions of the Guides:

- i. Assumptions of fission product release fractions should take into account the type of fuel under consideration. The release values used in Appendix A should not be regarded as mandatory or universally applicable.

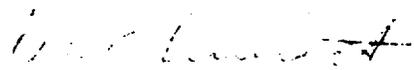
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2. A list of reactor types to which the Guides do not apply should be included in a revision of the Guides. Eventually separate Guides should be written for each such reactor type. Test reactors should be excluded from the present Guides rather than being combined with power reactors.
3. The Guides should be reviewed in the light of the recent SL-1 incident and consideration given to further prudent relaxation of siting restrictions based on experience gained on this incident.
4. An effort should be made to establish the trade-offs which can acceptably be effected between engineering safeguards incorporated in the reactor system and the various distances specified in the present Guides.

It is important to emphasize that increasing the key distances is not the only acceptable method of achieving an acceptable degree of safety for the construction of a reactor of a given power level.

Very truly yours,


M. C. Leverett
Chairman
Sectional Committee N6
American Standards Association