

August 3, 1961

MEMORANDUM

To : The File - SITE CRITERIA

From : J. B. Graham Original Signed By  
 Executive Secretary B. A. Graham

Subject: AIF-AEC MEETING OF JULY 31

On July 31, a meeting between representatives of the Atomic Industrial Forum (Reactor Safety Committee) and representatives of the AEC was held in the Commissioners' conference room at H Street. Commissioner Graham was the only Commissioner present. Mr. Kenneth Davis was the senior representative from the AIF and the ACRS was represented by Drs. Thompson, Gifford and McCullough. (A complete attendance list is attached.)

At the outset of the meeting, a document entitled "Comments on Site Criteria," dated August 1, 1961, was distributed to all present. This compilation was prepared by the Division of Licensing and Regulation and summarizes comments received by the Commission pertaining to 10-CFR Part 100, Proposed Site Guides. This summary includes specific comments submitted in writing to the Commission by representatives of industry, educational institutions and research organizations. It also covers comments on site criteria submitted to the Joint Committee on Atomic Energy during its hearings held in June. (e.g., Dr. Thompson's testimony).

As a starting point, Mr. Davis reviewed the Atomic Industrial Forum's position as stated in its letter of June 6, to Mr. Price. Briefly, the Forum would like to see the guides limited so that they apply only to power reactors. They would like to see the example given in Appendix A eliminated or if this is not possible, a series of several sample calculations would be recommended. They feel strongly that the population center distance concept should be deleted since they believe that the 1-1/3 number is without technological basis. Mr. Price stated that he did not believe the Commission and the Forum were really very far apart, and complimented the Forum for the many worthwhile suggestions which were made in the Forum's redraft of Part 100.

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Mr. Davis expressed the opinion that if the Commission's policy is against the location of reactors in cities, it should be so stated as a matter of policy and not inferred by calculation. He also questioned the use to which Part 100 might be put. Is it really intended for reactor designers, or would it also be used as a framework for making the safety decision. In other words, is it a guide for industry or for the Commissioners? Mr. Price appeared to feel that it would be useful to both.

Dr. Beck reviewed the basis for the 1-1/3 population center distance. This, of course, is the uncontained accident and the thought is that large numbers of people should not be subjected to serious injury. Mr. Davis feels that there should be consistency in the assumptions for the contained and uncontained accidents. (In the guides, a puff release is assumed for the uncontained accident.\* There are other conditions which are at variance so that the effects of these two different accidents cannot truly be compared.)

Dr. Thompson stated that there were some inherent gains in Part 100 and one should not lose sight of these because of debate in regard to some of the details. He feels that the dose limits which were enunciated represent a large step forward. The Guide also lays out the steps for an approach to the evaluation of reactor hazards. He also expressed the opinion that it may be that agreement can only be reached if the examples in the Appendix are eliminated. Dr. Thompson cited the various factors of conservatism which exist in the Guides. Some of these he feels are amenable to R&D study, others are not.

In regard to the location of large reactors close to big cities, Dr. Thompson observed that about 5 of the 25 power reactors operated to date have at one time or other been in some serious difficulty. This would illustrate the point that the time has not yet come, from an engineering standpoint, to completely trade away distance for engineering safeguards. He stressed that the Committee believes that the Guide should be a flexible one so that these distances can be made smaller at the proper time or under special circumstances.

Mr. Davis stressed that the Commission must word the Guide so that it cannot be misunderstood. He feels that the present wording allows for misinterpretation in a number of places.

There was then some discussion of whether or not, or when, "guides" become regulations.

There was discussion of the man-rem concept and the manner in which it can be used, in effect, to determine a population center distance.

\*This is completely hidden but forms the basis for the 1-1/3 factor.

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Dr. Thompson stated that the ACRS, somewhat in ignorance, had recommended a value of 4 million man-years as a criterion. A preliminary comparison showed that this more or less conforms with the 1-1/3 factor for large cities.

There was general agreement that the post-licensing population growth problem is a difficult one. No one was able to recommend a solution.

There appeared to be general agreement that any references to test reactors should be eliminated from the Guide. As a final comment, Mr. Davis pointed out that it was a little unfair to infer that new concepts will be treated more conservatively than those for which licenses have already been granted. The latter were, of course, new concepts at the time the licenses were granted.

Mr. Davis thanked Mr. Graham for having been given an opportunity to discuss the Forum's views in detail.

Attachment:  
Attendance list.

cc: F. J. Thompson, Chairman  
F. A. Gifford  
C. R. McCullough  
L. Silverman

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ATP-ARC MEETING

JULY 31, 1961

Attendance:

ARC

ARC  
W. J. Thompson, Chairman

Consolidated Edison

H. L. Pflou  
C. Beck  
R. Lowenthal  
J. A. Labergh  
J. H. Forgoon (part time)

H. L. Pflou

C. Beck

R. Lowenthal

J. D. Harbo

J. A. Labergh

Z. Western

E. H. Forgoon (part time)

Atomic Industrial Forum

W. K. Davis (Society)  
J. Gray (Nuclear Utilities Services)  
G. Milne (Consolidated Edison)  
R. Smolts (General Electric)  
E. Wiggin (AEC Staff)  
J. Healey (General Electric - Hartford)  
R. Coe (Yonkers)