APR - 6 1962

MEMORANDUM FOR CHAIRMAN SEABORG
COMMISSIONER GRAHAM
COMMISSIONER WILSON
COMMISSIONER OLSON
COMMISSIONER HAWORTH

SUBJECT: PUBLIC ANNOUNCEMENT OF REACTOR SITE CRITERIA

Attached for your information is a public announcement concerning the Commission's action in approving reactor site criteria. The announcement was a part of staff paper R 2/39. The Director of Regulation has informed us that the Commission has approved that paper. We plan to issue the announcement at 2 p.m. Monday, April 9. The Joint Committee will be informed in advance.

(signed) William E. Hughes
for

Duncan Clark, Director
Division of Public Information

Attachment

cc: A. R. Luedecke, General Manager
H. L. Price, Director of Regulation
R. X. Donovan, SACR (2)
R. Lowenstein, L&R
S. Kingsley, OGC
F. K. Pittman, DRD
J. Townsend, DPI

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FOUCHARD/jh
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AEC APPROVES REACTOR SITE CRITERIA GUIDES

The Atomic Energy Commission has approved criteria which it will use to guide its evaluation of proposed sites for stationary power and test reactors licensed by AEC.

The Commission has developed the guides so that industry, state and local officials and the general public will be familiar with the factors which are considered by AEC in judging proposed sites for reactors.

The guides reflect an attempt to provide an objective basis for reactor siting to the extent that current reactor technology allows, but do not eliminate entirely the continued need for subjective judgments both by applicants for reactor permits and licenses and by the Commission. The criteria have been established as guides for the interim period until enough experience can be accumulated with reactors to provide a more definitive correlation of factors pertinent to the question of reactor siting and to permit the writing of more definitive standards. Sufficient flexibility has been included in the guides to allow for this orderly evolution of siting standards as the industry progresses.

The guides apply primarily to power and testing reactors of a general type and design on which operational experience has been gained, but they can also be applied, with appropriate modifications, to other reactors. For reactors that are novel in design and unproved as prototypes, it is expected that the criteria will be applied in a manner that takes into account the lack of experience. Applicants for reactor construction permits may demonstrate to AEC the applicability and significance of factors other than those set forth in the guides.

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The guides were developed by the Commission in consultation with its Advisory Committee on Reactor Safeguards and following discussions with industrial groups. They were published for public comment on February 11, 1961, and 34 formal comments were received. There was widespread support of the AEC proposal to issue guides and there was general acceptance of the basic factors included in them, particularly the issuance for the first time of radiation exposure values which could be used in the design of reactors and in the evaluation of sites with respect to potential accidents.

Objective of these guides and of all Commission activities involving reactor licensing and operation is to keep the exposure of individuals to radiation at a minimum in the event, however remote, that an accident should occur with a reactor.

Factors which are considered by the Commission in judging proposed sites are:

1. Population density in the area surrounding the proposed site, and the uses which are made of this area, such as industrial, farming, residential.

2. Physical characteristics of the site, including seismology, meteorology, geology and hydrology.

3. Characteristics of the proposed reactor, including maximum power level; use of the facility; extent to which the design of the reactor incorporates well proved engineering standards; and the extent to which the reactor incorporates unique or unusual features which have a significant bearing on the probability or consequences of an accident.

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An applicant is required to calculate three distances:

A. Exclusion area, the area surrounding the reactor in which the licensee has authority to determine all activities, including exclusion or removal of personnel and property from the area. Residence within this area normally would be prohibited. If residence is permitted, it must be possible to move these persons quickly in order to minimize hazard.

B. Low population zone, the area immediately surrounding the exclusion area. In this area the number of residents must be small enough so that they could be evacuated or other protective measures taken on their behalf in the event of a serious accident.

C. Population center distance, the distance from the reactor to the nearest boundary of a densely populated center containing more than 25,000 residents.

Public comments received following publication of the proposed guides raised objection to the appendix section which included an example of calculation distances for the exclusion area, low population zone, and population center distance for a hypothetical reactor. Objections centered around concern that the numerical values expressed in the appendix and the resulting distances represented a larger degree of inflexibility in the guides than intended.

In order to eliminate ambiguity, the example calculation has been deleted from the site criteria guides. The calculational procedure used to arrive at these distances and related explanatory information are being incorporated into a Technical Information Document 14344 which soon will be issued by AEC. This document should be helpful to industry as a reference work. The calculational

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approach illustrated in the TID results in distances which generally correspond with current siting practices of the Commission.

Other significant differences between the criteria guides as first published for comment and those approved by the Commission are:

1. Some editorial changes have been made to clarify the intent of the guides, particularly to emphasize their interim nature and to identify the criteria as being specific to the United States.

2. The material describing factors to be considered in evaluating sites has been reorganized to clarify the emphasis placed upon characteristics of the reactor design and the proposed operation.

3. The criteria now specifically state that the guides are directly applicable to stationary power and test reactors, thus eliminating any ambiguity about their application to mobile plants, which was not intended.

4. A section has been included to deal with the question of locating more than one reactor at a single site.

The Commission is giving notice that it has adopted these reactor site criteria guides, 10 CFR Part 100, effective 30 days after publication in the Federal Register.

A copy of the "Reactor Site Criteria Guides" is attached.

APR 5 1962

Mr. David C. Eberhart, Director
Office of the Federal Register
National Archives & Record Service
Washington 25, D. C.

Dear Mr. Eberhart:

Attached for publication in the Federal Register as an effective rule are an original and three certified copies of a document entitled:

TITLE 10 - ATOMIC ENERGY

CHAPTER I - ATOMIC ENERGY COMMISSION

PART 100 - REACTOR SITE CRITERIA

Publication of the above document at the earliest possible date would be appreciated. It is requested that you advise the Commission of the filing and publication dates of this document by telephoning Code 119, Extension 3446.

Sincerely yours,

Woodford B. McCool
Secretary

Enclosures:
Original and 3 Cert. Cys.

cc: Docket Clerk (L&R) w/cy attach.
Wm Hughes (PI) w/cy attach.
W. B. McCool (GMS) w/cys attach (2)
Legal Files (w/cy attach)
Leg. Reference Library w/cy attach.
OGC Reading File w/cy attach.