

APR 5 1962

Honorable Chet Holifield
Chairman, Joint Committee
on Atomic Energy
Congress of the United States

Dear Mr. Holifield:

The Atomic Energy Commission has approved site criteria for stationary power and test reactors licensed by the Commission.

You will recall that proposed criteria were published for public comment on February 11, 1961. In the course of obtaining public comment, we found that there was widespread support of the proposal to issue guides on this subject but there was considerable 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. The objections centered around a 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 the site criteria which have now been approved for use, the appendix containing the example calculation has been deleted. However, the example calculation and related explanatory information are being incorporated into Technical Information Document 14844 which will soon be published by the Commission. This document should be helpful to industry as a reference work. The calculational approach illustrated in that document results in distances which generally correspond with current siting practices of the Commission.

Other significant differences between the criteria as published last year for public comment and the criteria now approved by the Commission are:

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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 they 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 reactor site criteria, 10 CFR Part 100, will be published shortly in the Federal Register to be effective thirty days after publication. Copies are enclosed for your information.

There are also enclosed copies of the related Technical Information Document 14844 entitled "Calculation of Distance Factors for Power and Test Reactor Sites" to be published soon in the TID series.

Sincerely yours,

Cc: Cong. Liaison (2)
Secretariat

H. L. Price

H. L. Price
Director of Regulation

*4/5 sent to JCAE via courier
from S. office. Jm*

OFFICE ▶	Enclosures: REG		CONG. L.
	As above	<i>[Handwritten initials]</i>	
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Robert J. Frederick, Chief, Public
Filings & Proceedings Branch
Office of the Secretariat
L. P. Roger Huard, Chief, Administrative Branch
Division of Licensing and Regulation

March 26, 1962

PART 100, "REACTOR SITE CRITERIA"

Attached are the two "last pages" for the subject Part, which was approved by consent at the Commission meeting on Friday, March 23, 1962.

We will need 250 copies of the Part for initial distribution. It is our understanding that 50 copies are immediately available. If this is the case, we can use them now.

We will prepare a Federal Register package and Joint Committee letter following the usual procedures.

Attachments:
As stated above

OFFICE ▶	DLR					
SURNAME ▶	LPRHuard:bmj					
DATE ▶	3/26/62					

J. DiNunno
Division of Licensing and Regulation

February 27, 1962

R. V. Hurst
Division of Licensing and Regulation

NUMERICAL METHOD FOR SITE SELECTION, COMMENTS ON

The paper, "A Quantitative Method for Comparing Reactor Sites" dated 12/7/61 by J. Garrick is one approach to a problem that lends itself to some evaluation from a mathematical or statistical viewpoint. However, this analysis represents an oversimplified comparison of reactor sites. Consideration is given only to weather and population data. Assuming that a reactor location meets the requirements of 10 CFR Part 20, there are many more important items, namely, population growth, reactor design, containment, building foundations and topography to be given consideration.

In order to mathematically solve the problem, the author chose an equation based on the theory of probability. This equation will no doubt give different numbers for variable parameters but the actual application to the problem to be solved is incidental and not clear. In other words, why was the solution not a solution to some differential equation which would give the same or similar relative numbers.

The greatest visible danger to the widespread plotting of reactor site suitability for such equations, especially if L and R are in any way associated with their use, is that they become rules or gauges to evaluate reactor sites by. These people could be encouraged to make some mathematical analysis of the site problem with a firmer foundation for the problem which would include other significant features of the siting problem.

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DATE	2/27/62					

FORM 1 (Rev. 9-53)

file

February 26, 1962

MEMO for Hal Price ✓
Sid Kingsley

What is the status of Site Criteria?

Let's get this out before the 202 Hearings

and the other 12 on which period has expired.

L. K. Olson
L. K. Olson *p*

P.D. 1-2

M. F. Searl, Chief, Economics Branch
Office of Operations Analysis and Forecasting

FEB 21 1962

J. DiNunno, Chief, Reactor Standards Staff, DL&R
J. Newell, Chief, Site-Environmental Branch, DL&R

PROPOSED REPORT, "NUCLEAR POWER AND THE UTILITY SYSTEM",
SITE SECTION, COMMENTS ON

According to the preface, it would appear that the purpose of this report is to provide information regarding the economic aspects of nuclear power plant siting. However, the section of the report dealing with siting belabors the safety issues involved in the location of the SP&R, the Process Heat Reactor and the ICB&R, and in this regard detracts from the purpose of the report. This discussion appears to be an "expose" on difficulties experienced by the AEC in these cases, and the implications do not seem to be consistent with the siting experience implied in the discussion on page 5 where the records show that some nuclear plants are being constructed in conjunction with existing fossil plants.

At the top of page 5 the first sentence is not, in our opinion, an entirely correct statement of the problem of siting a nuclear power plant on a utility system. We believe it should be pointed out that nuclear power plant siting imposes safety as an additional consideration in site selection, and the siting problem is one of finding a location which satisfies the factors normally considered in the siting of a power plant on a utility system and which also is compatible with safety requirements. Without going into detail, we would recommend that the section entitled "SITE" should be rewritten to omit the detailed account regarding the "difficulties" experienced with the ICB&R, SP&R and PH&R.

DL&R has finalized a set of site criteria that is now in the hands of the Secretariat for reproduction and placement in the Commission agenda for action. I suggest you get a copy of the staff paper from which you may be able to get guidance on our views on reactor siting. Attached is a proposed Technical Information Document on this subject which you may also find helpful. In addition, your attention is invited to a proposal recently submitted to DRD by Jackson and Moreland, Inc., that contains a treatise on this same problem (Technical and Economic Evaluation of Nuclear Reactor Siting and Containment).

Attachments:

TID 14844; *Subject Reports*

OFFICE ▶	DL&R:SE	DL&R:RSS			
SURNAME ▶	JFNewell	JDiNunno/lbm			
DATE ▶	2/21/62				

W. B. McCool, Secretary
Office of the Secretary

February 16, 1962

Clifford K. Beck
Deputy Director of Regulation

STAFF PAPER ON REACTOR SITE CRITERIA

It is requested that the attached staff paper be reproduced for action by the Commission and that it be placed on the agenda as early as possible.

Enclosure:
As stated

R. E. / 1/16/62

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