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July 12, 1955

Mr. K. E. Fields
General Manager
The Atomic Energy Commission
1901 Constitution Avenue, N.W.
Washington, D. C.

Reference:
Oral presentation

Dear Mr. Fields:

At its Thirteenth Meeting on June 29, the Advisory Committee on Reactor Safeguards, by unanimous vote of the members present, passed the following motion concerning the proposal of the J. A. Jones Company and associates to construct an engineering test reactor at a site in South Carolina:

"The proposed reactor, although similar in some of its technical features to the LIR and therefore in this respect does not represent a radical departure from established practice, does embody as a fundamental concept in its utilization a large and unprecedented degree of flexibility in the kind of experiments that will be run and also the fact that a number of different experiments will be operated simultaneously.

"In addition, only a few sample experiments were mentioned at this review. There must be a large number of experiments of entirely unknown and unanticipated characteristics for which the facility should be used.

"Moreover, 175 megawatts is a large power level for a test reactor. This is some six times greater than that of the existing LIR and up to 30% of this power can be carried by experimental assemblies. Even if the basic core structure is considered entirely adequate, one is nevertheless speaking of experiments which correspond to reactors of large power levels of unknown technology. Because of the large power level, and the great flexibility associated with this reactor, we feel that it would be much more desirable to have it located at the National Reactor Testing Station than in South Carolina. Even so, we would also recommend that the ARCO installation should provide adequate containment.

"If an Engineering Test Reactor were located in South Carolina, there would be certain desirable experiments that could not be performed safely at that site."

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Mr. K. E. Fields

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RECOMMENDATION

The described engineering test reactor and associated experiments should not be located at the proposed site in South Carolina.

The reactor and experiments were the determining factors in the above recommendation. The action of the committee does not imply that the proposed site may not be suitable for other reactor proposals.

Sincerely yours,

C. Rogers McCallough
Chairman
Advisory Committee on
Reactor Safeguards

cc: H. T. Wensei, RIES
C. A. Nelson, Director
Division of Inspection
W. Kenneth Davis, Director
Division of Reactor Development

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