

May 25, 1955

Mr. K. E. Fields  
General Manager  
U. S. Atomic Energy Commission  
Washington 25, D. C.

SUBJECT: Pennsylvania State University Research Reactor  
(Report by W. M. Brazzale, dated March 28, 1955)

Dear Mr. Fields:

The Pennsylvania State University Research Reactor was again reviewed at the Twelfth Meeting of the Advisory Committee on Reactor Safeguards on May 6, 1955. A Subcommittee consisting of W. P. Connor and I. B. Johns have considered this reactor in some detail with W. M. Brazzale.

In the recommendations which follow "zero power" means power levels up to 30 watts.

RECOMMENDATIONS:

1. Penn State should be permitted to carry out the program proposed, page 9 of the Supplement Report referred to. This is essentially calibration and criticality measurements at zero power using a clean reactor.
2. A report describing these experiments be submitted to the appropriate AEC office. This report shall also include an interpretation of the results with respect to limitations which can restrict the flexibility of the reactor operation, these limitations being of such a nature as to reduce significantly the possibility that errors in judgment, accidents of operators, or failure of equipment can result in a release of dangerous quantities of fission products.

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3. During the interim period, between the zero power operation and the final agreement with AEC, the excess reactivity in the reactor be limited to 1.6% above the critical value for the cold reactor, graphite reflected on three sides.

Sincerely yours,

C. Rogers McCullough  
Chairman, Advisory Committee on  
Reactor Safeguards

cc: H. Price  
Wm Knox  
C. E. Russell