STANDARD FORM NO. 64

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Office Memorandum • UNITED STATES GOVERNMENT

TO : The Files

DATE: August 22, 1960

FROM : C. Rogers McCullough

SUBJECT: MEETING OF THE ENVIRONMENTAL SUBCOMMITTEE -- SITE CRITERIA

It appears that there is an advantage in having a set of site criteria which may take the form of regulations in rather general terms to avoid the problem of freezing upon quantitative concepts prematurely. There has not yet been enough work done to be sure that any quantitative rules will not result in either unnecessary conservatism or acceptability for sites which are actually not sufficiently safe.

Such general criteria should be implemented by some semi-quantitative guides which could have the status of working papers and thus would be subject to continual revision. In this way it would be possible to avoid freezing quantitative values in the formal criteria or regulations until one is very sure of their validity. To illustrate how premature site criteria might hamper progress in the direction of increased safety, the following may be cited. It seems reasonable that for aboveground reactors, even with containment, an exclusion radius of at least one-half mile should be required for power levels of 500 MW thermal and above. Likewise, for such reactors it seems reasonable that they should be at least several miles away from a high population density typical of large cities and their suburban areas. However if reactors could be buried in the ground similar to the pressure suppression vessel of the Humboldt Bay reactor, there is considerable reason for relaxation of the distance to high population densities. It should also be pointed out that the day may not be far off when the safety containment vessel can be omitted for certain well-proven reactors such as certain designs of pressurized water reactors. Accordingly, the following drafts are suggested for discussion.

Enclosure

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