ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

July 20, 1965

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

Dear Mr. Holifield:

In response to your request of July 6, 1965, we wish to make the following comments on the prepared testimony of Mr. Adolph J. Ackerman, presented at the recent Joint Committee hearings on the extension of Price-Anderson indemnity legislation.

Mr. Ackerman states that there is a tendency on the part of the management of utility companies to abdicate responsibility for the safety of their nuclear plants, partly because of the indemnity provisions of Price-Anderson legislation. The Committee has seen no evidence, during its reviews of nuclear reactor proposals, that supports this view.

The Committee wishes to comment on two other aspects of Mr. Ackerman's testimony. The first is a general view on the nature of responsibility of scientists and engineers relative to nuclear reactors. The second is the question of how safe nuclear reactors are at present, as concluded from their operating records.

The first point is perhaps stated most succinctly by Mr. Ackerman on page 4 of his prepared testimony, where he contrasts what he calls the "Atom under Freedom" and the "Atom in Serfdom". These are, as taken from the testimony,

> "1. The Atom under Freedom -- This is the traditional multicentered American system guided by ethics, individual responsibility and self-discipline in engineering and in law, and with reasonable regulatory controls. (A well-known example in an older technology: Our drinking water.)
>
> 2. The Atom in Serfdom -- This is a revolutionary system founded on fear, with control by a centralized governmental authority over the application of the technology and communication with the public."

We concur with Mr. Ackerman's view that the safe development of atomic power must be "guided by ethics, individual responsibility in engineering and law, and with reasonable regulatory controls." It is our opinion that this is precisely the course now being followed.

Nuclear reactors are designed, built, and operated largely by engineers, and the Committee has seen no evidence of depreciation of the commonly displayed high feeling of responsibility of the engineers involved. In fact, a realization of need for safety is characteristic of the views and technical acts of engineers in the nuclear reactor field. However, we believe that the degree of governmental control now exercised is necessary, because the country cannot accept in atomic energy the occasional major accidents that have punctuated engineering progress in other fields, or such conditions as are represented by the present pollution of the atmosphere and our water resources. The Committee believes that it is essential to note in this connection that independent technical reviews are important features of the analysis of the safety of every nuclear power reactor built and operated in the United States. Among the independent groups that must be satisfied on safety are successively the Regulatory Staff of the AEC, the Advisory Committee on Reactor Safeguards, and the Atomic Safety and Licensing Boards. That such careful attention must be given each project by each group of technical persons (scientists and engineers with no responsibilities to these projects other than regarding safety) testifies to the seriousness with which the Congress and the AEC regard the need for careful, independent study of nuclear reactor safety.

The Committee disagrees strongly with Mr. Ackerman on the question of the safe conditions of existing nuclear reactor plants. His testimony cites the operating history of several power reactors, and underscores the shutdowns as evidence of faulty design or operation. Many of the shutdowns cited were periods of normal fueling and inspection. Others were for maintaining the integrity of one of the multiple protective barriers. We infer from the operating records that utility companies are acting in accordance with recognition of their responsibilities to the public.

The Committee believes, as does Mr. Ackerman, that accidents to nuclear reactors beyond those commonly called "credible" can be postulated. Such accidents do not have a probability that is exactly zero. The Committee does, however, believe that in cases where it has recommended

approval of a proposal, the probability of such extreme accidents is so small as not to constitute a significant hazard to the public. This is counter to the views stated by Mr. Ackerman.

I hope that these comments will help you to assess Mr. Ackerman's views.

Sincerely yours,

/s/

W. D. Manly
Chairman