

H. L. Price, Director  
Division of Licensing & Regulation

October 7, 1958

J. B. Graham, Executive Assistant  
Advisory Committee on Reactor Safeguards

**CORROSION PROBLEMS AND WATER CHEMISTRY**

The Committee is interested in the problem of whether or not the steam from boiling water reactors is unusually corrosive. It appears that the radiolytic gas evolved by the decomposition of water may result in concentrations as high as 20 to 50 ppm of oxygen. This would be higher than experienced in normal practice with steam turbines and associated equipment and would, therefore, warrant special consideration.

This phenomenon could be of special interest in the Commonwealth Edison reactor. It is requested therefore that the applicant be prepared to comment upon this problem during the forthcoming meeting with the Committee.

This problem probably does not exist in the Yankee reactor due to the injection of hydrogen. However, the applicant should be prepared to discuss the question of water chemistry, should it arise, particularly the effects on boron compounds in high radiation fields in the presence of hydrogen, etc.

cc: C.K.Beck, HEB

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*K. R. Adams*  
*M. F. Linn*  
*F. A. Lifford*  
*J. Wilkinson*  
 11/28/58

cc: H.P. Price, DMR

C. Rogers McCullough  
 Chairman

Sincerely yours,

Accordingly, even though a community may grow in the future, the reactor operation may be able to continue with an acceptably low risk. The future should speak for itself. There are my own views. They will be shared with the Advisory Committee on Reactor Safeguards. Perhaps you would like further consideration of this and related subjects by the whole Committee.

Honorable John A. McCone  
 Washington, D. C.

October 13, 1958