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28 April 1953

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Doctor Walter D. Claus  
 Chief, Biophysics Branch  
 Division of Biology and Medicine  
 United States Atomic Energy Commission  
 Washington 25, D. C.

Dear Doctor Claus:

Attached is a letter to Doctor Harry Wexler of the Weather Bureau, inviting him to preside over our radioactive fallout conference this summer. We certainly hope he will accept, for it would be hard to find a man better qualified for the job. Most of the problems center about the behavior of the atmosphere in one way or another, and so it is appropriate that a leading meteorologist be in the chair. In addition, he has the sort of patience and tact, combined with a good deal of drive, which will insure that the job gets done.

We have suggested in the letter that he call you to get any further background information. We hope you will back up our statement about the importance of the job, for he is a busy man and would only do it if he were convinced of our need for him. You will also be able to tell him more about RAND's position in the project, our contractual relations with the AEC and Air Force, etc., than we could tell him in the letter.

As soon as we hear from Wexler (and we will call him Friday, if he does not reply first) we will go ahead full steam with the invitations and plans. It may be hard to get some of the people at this late date, but we hope to get acceptances from a good fraction of the names on the list.

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Sincerely yours,

*W. W. Kellogg*

W. W. Kellogg  
Electronics Division

WWK:aj  
Encl. (1)

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*(Handwritten notes)*

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28 April 1953

I-4599

Doctor Harry Wexler, Chief  
Scientific Services Division  
United States Weather Bureau  
Washington 25, D. C.

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Dear Harry:

This is to confirm and amplify our telephone invitation of this morning concerning the fallout symposium which is to be held at RAND this summer. You must have been a little startled at having it presented to you so abruptly, but we did want to get an idea as to whether there was a chance of getting you before we wrote.

We are tentatively planning to start on the 29th of June and continue for two or three weeks. The date of the start is fairly firm now, but the length of time is not.

This symposium has been planned in the hope of bringing forth a report which will fairly state the position of the fallout problem at the present time, and to outline a reasonable course of action for improving the situation. To date there has been a wide diversity of opinion as to the importance of this problem. Now realistic answers are being demanded, because of its importance in the operation of test sites and in the making of war plans. Such matters should obviously not be decided on unfounded opinion, but on the best possible guess, and it seemed to us that the way to get such a "best guess" would be to assemble a group of qualified people and let them thrash it out.

The preliminary plan of the conference is to first collect a large group of interested persons at a two or three day symposium. Here the various viewpoints could be presented and discussed. Next, there would be about a two week working conference to examine and analyze the available information, prepare a report summarizing the state of the art, and to recommend a research program. This working conference would be made up of a much smaller group of technical specialists, and this group would probably be further subdivided to work on various phases of the problem. Finally, the entire symposium would be re-convened to review and revise the report. Final editing would be handled by the RAND staff.

Attached is a proposed list of people for the symposium and we would appreciate any suggestions you may wish to give us as to personnel, plans or procedures.

SUGGESTED LIST OF PARTICIPANTS IN RADIOACTIVE FALLOUT CONFERENCE

Harry D. Smythe, AEC  
Thomas E. Murray, AEC  
Eugene M. Zuckert, AEC  
Edward Teller, University of California  
John Bugher, AEC  
Merril Eisenbud, NYOO, AEC  
Roderick W. Spence, LASL  
Gaslen L. Felt, LASL  
Donald H. Rock, AFCAT-1  
John Turkevich, Princeton University  
A. F. Spilhaus, University of Minnesota  
Robert E. Holzer, University of California  
at Los Angeles  
James H. Shearer, Tracerlab  
Cmdr. E. W. Fate, J-3 Div., JTF 132  
Robert F. Bacher, Caltech  
George M. Kavanaugh, AEC

WORKING GROUP, PHASE 2

Philip W. Allen, USWB  
Capt. Russell Maynard, USN, AFSWP  
Maj. Thomas A. Gibson, USAF, AFSWP  
Maj. N. M. Lulejian, USAF, ARDC  
Capt. Kendall Russell, USAF, ARDC  
C. E. Anderson, GED, AFCRC  
Heinz Lettau, GED, AFCRC (not currently  
AEC cleared)  
Col. George F. Taylor, ARDC  
Don Perkins, AFDAP, USAF  
John von Neumann, Institute for Advanced  
Studies  
Walter D. Claus, DEM, AEC  
Forrest Western, DEM, AEC  
Col. Ben G. Holzman, Kirtland Air Force  
Base  
Harry Wexler, Chief, SSD, USWB  
Lester Machta, USWB  
Herbert Scoville, Jr., AFSWP  
S. G. English, Division of Research, AEC  
Milton S. Fesset, Caltech, RAND  
consultant  
Forrest Gilmore, Caltech, RAND  
consultant

Paul Fins, AEC

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As I mentioned on the phone, we have been working on this problem for about ten months at RAND, and have already some feel for the factors involved and a collection of available data. Thus, we will not be starting from scratch, and many of the people attending can also be said to have their feet wet. Certain specific problems are now becoming clearer, and some of these are:

- o What effect will an atom burst have if set off in a convectively unstable atmosphere?
- o How will the stability of the atmosphere and the yield effect the height of rise of the cloud?
- o What limits can be put on the eddy diffusion rates in the free air? (Lester Machta is, I know, concerned with this, and I am writing him a separate letter.)
- o What is the scavenging efficiency of sand particles or raindrops?
- o How will the worldwide circulation spread the debris?

You will undoubtedly think of other factors, and these are just to indicate the scope of the general problem of radioactive contamination from either one bomb or from a large scale campaign using many such weapons. It is evident that both cases should be considered. You may notice that we have not mentioned the biological problems associated with radioactive contamination. We will try to take these into account where necessary, but the major purpose of the symposium is to pin down where the products will go rather than to tell about their effects.

We have no illusions that the proposed conference will solve all of the problems. We do believe, however, that if it is properly run it can do much to clarify them. We hope to persuade you to take on the job of running the conference, because this is the sort of problem on which you have worked before. Most of the factors are concerned with the behavior of the atmosphere in one way or another, and so the meteorologists will have to play an important role. We are convinced that you will be able to exercise the control necessary to keep the conference on the right track and to provide the drive necessary to achieve our end. You will receive all possible help from us in the leg work, planning and write-up phases.

We hope that you can be convinced of the importance of this symposium and will consent to help us. If you accept the chairmanship, one of us on the RAND working group will visit you in Washington well ahead of time to consult with you on the agenda for the symposium, and to tell you in detail about our work to date. In the meantime, you may want to talk to Doctor Walter Claus or Doctor Forest Western of the AEC in Washington, who know about our plans.

Sincerely yours,

WWK:aj  
Encl.W. W. Kellogg  
Electronics Division

cc: Dr. Walter D. Claus