

1

UNITED KINGDOM DELEGATION  
2nd U.N. CONFERENCE ON THE PEACEFUL USES  
OF ATOMIC ENERGY, 1958

12th September 1958

Dear Dr. Libby,

Many thanks for your letter of September 10th putting on record your understanding about the agreement we came to in our discussions on September 8th about improving collaboration in the research field.

My understanding agrees with yours with only small variations which are probably only a question of wording. These are:-

Page 2 para.3. In "fast neutron damage" I assume we include all important neutron damage.

para. 4 I would like to substitute "basic technology" for "physical metallurgy" The intent is to include radiation damage and any fundamental metallurgical studies directed towards reducing brittleness.

Yours sincerely,  
John  
/s/ ~~John~~ Cockcroft

J. D. Cockcroft

Dr. W. Libby,  
U. S. Atomic Energy Commission  
c/o U.S. Delegation  
Palais des Nations  
Geneva

cc: Dr. Gaunt  
Mr. W. Strath  
Dr. B.F.J. Schonland  
Dr. H. Kronberger  
Mr. J. Hartog

INTERNATIONAL CONFERENCE ON THE  
PEACEFUL USES OF ATOMIC ENERGY

Geneva, Switzerland

September 10, 1958

Sir John Cockcroft  
United Kingdom Atomic Energy Authority  
11 Charles II Street  
London, S.W. 1, England

Dear Sir John:

The discussion Monday afternoon on means of improving technical contact between the U.S. Atomic Energy Commission and the U.K. Atomic Energy Authority was productive, I believe, and I am looking forward to increasingly profitable cooperation in the future. As we agreed, I am writing to you to record the understandings that were reached in the discussion.

As a general principle, we agreed that it is desirable to promote a close and continuing cooperative U.S.-U.K. effort in basic research and development by any means decided to be effective. An effective coordination can probably be obtained by the appointment in each field of two experts, one from each country, who, in each field of cooperation, would serve as a special channel of communication and be responsible for coordination. These individuals could constitute a cooperation committee which, in each country, would have the overall responsibility of assuring cooperation and the flow of information to and from the research men in their own country and those in the other country. As I indicated, I am quite concerned about the time lag between obtaining results in our countries and the reporting of those results in a form useful to scientists in the other country. We agreed that efforts would be made to shorten this lag and that we will send to you many of the interim progress reports now being produced by most of our laboratories. In return, it was agreed that you would investigate the preparation of a newsletter type of report covering the highlights of some of your research and development activities. Our cooperation experts will, together with Dr. E. L. Brady of our London office, discuss the form and contents of these reports with your experts and with Mr. Martin Fishenden of Harwell. It is understood that the reports from both sides are to be considered preliminary, subject to change and certainly not equivalent to publication.

A very important step is to continue and to further encourage the long-term assignments of technical staff from your laboratories to ours, and vice versa. We shall be happy to try to accommodate your scientists in any of our laboratories.

In specific areas of research and development, the following fields and steps therein were agreed upon:

1. Basic research in general and controlled thermonuclear reactions: Since the exchange of information in this field has been quite satisfactory to both of us, there is less need here to establish a more formal mechanism than now exists. However, our Director of Research, Dr. John Williams, will continue to head up the exchanges in this area for us as our cooperation expert. Exchanges of personnel and joint meetings as agreed upon by the leaders of our projects have our full support.
2. Uranium oxide fuels: A fundamental investigation of the basic inorganic and radiation chemistry of uranium oxide systems is needed. As a first step a joint seminar on the subject will be held to summarize and clarify the present state of knowledge. Dr. E. L. Brady and our expert in this, yet to be appointed, will discuss the organization of this seminar with Dr. Finniston of Harwell.
3. Gas coolant compatibility: Close contact will be maintained with each other on gas coolant compatibility work, through our respective cooperation experts in this area. At present there seems to be relatively little overlap of research effort since the U.S. effort is concentrated more on helium while the U.K. program is primarily devoted to carbon dioxide. However, as I indicated, I am greatly interested in the results of studies you have conducted on the availability of helium and the effect of its use on reactor economics and I would appreciate very much receiving copies of reports you have prepared on the subject.

We agreed to pay special attention to the oxidation of graphite by  $\text{CO}_2$  and its dependence on radiation as well as to fast neutron damage of graphite, and I am asking members of my staff to ensure that the U.S. cooperation expert is appointed as soon as possible, so as to expedite action in this field.

4. Beryllium: Since the AEC has turned over to private industry the responsibility for developing beryllium technology, there is little need to establish a close government-to-government exchange in this field, although we will be happy to assist if needed. However, we agreed

that a useful exchange can be established on the physical metallurgy of this element, and our cooperation expert in this area, soon to be appointed, and Dr. E. L. Brady will work out with Dr. Finniston specific means of implementing this exchange.

5. Plutonium recycle research: In this area, Dr. Norman Hilberry of the Argonne National Laboratory, will be our cooperation expert and will discuss means of further implementation of the exchange with Dr. Schonland and Dr. Finniston. Since Dr. Hilberry plans to visit Harwell before returning to the United States, this discussion could conveniently be held at that time.

The above, I believe, covers all of the major points of our fruitful discussion. I would appreciate your informing me whether your understanding agrees with mine and whether there are any other points that should be included in this letter of agreement.

I would like to repeat that I believe progress toward establishing closer relationships was made in our discussion. I assure you that the Commission looks forward to continuing a mutually profitable and harmonious research relationship with the Atomic Energy Authority.

Sincerely yours,

Willard F. Libby

Copies to:  
W. F. Libby  
John Hall  
John Williams  
Norman Hilberry  
E. L. Brady

C O P Y