UNCLASSIFIED

[redacted]

4/9/96

337

INTER-OFFICE MEMORANDUM

DATE June 3, 1946

TO: MR. N. E. BRADBURY

FROM: R. D. Richtmyer

SUBJECT: Nuclear Physics Conference in August

VERIFIED UNCLASSIFIED
LMR OCT 27 1980
Mark M. Jones 4/9/96

PUBLICLY RELEASABLE
LANL Classification Group
P. Lang 12-18-98

On May 29 Bradbury and Richtmyer conferred to initiate tentative plans for a Nuclear Physics conference to be held at Los Alamos in August, 1946. This memorandum summarizes the conclusions reached.

The primary purpose of such a conference would be to assist our staff in making plans for theoretical and experimental research in Nuclear Physics at Los Alamos during the following year. During the war the main emphasis here was on a specific application - the fission bomb - and only those fundamental studies were made having a clearly foreseeable relation to the bomb development; consequently, fundamental research, although performed in considerable quantity, was not really organized at all. To be successful, research on a large scale must be planned by, and with the help of the outstanding authorities in the field. Such authorities in the field of Nuclear Physics are no longer to be found in large numbers at Los Alamos. I believe that we have, and will have scientists capable of doing excellent research, but in the planning and organization of the work we really need help. We cannot, of course, simply relax and expect the conferees to drop a full-grown research program into our laps; but if our own efforts are well advanced at the time, I believe that assistance of incalculable value will come from the outstanding men who can reasonably be expected to attend the conference and take an interest in our work.

Another purpose of the conference would be to improve the standing of the Los Alamos Laboratory in the world of science. The conferees would have an opportunity to become better acquainted with the truly unique experimental facilities at Los Alamos. They would get a feeling that they are participating to some extent in the important work that we expect to be doing here. The intangible psychological barriers now existing between Los Alamos and the outside scientific world would be largely broken down.

A third purpose would be to stimulate research in certain fields of Nuclear Physics outside Los Alamos.

The field of activities under consideration would comprise all aspects of fundamental Nuclear Physics germane to this project, including fission physics, experimental uses of the water boiler, the fast reactor, etc., but not including applications, either military or industrial. The conferees would, of course, have to be cleared for discussion of these subjects, but not for discussion of weapons.

The proposed dates are Aug. 19 to 24, inclusive. It had been hoped to choose a time at which it would be possible for Niels Bohr to attend, but it now appears that this is impossible.

A small number of scientists would be invited to attend at project expense, including representatives from Oak Ridge, Argonne, and the Berkeley Radiation Laboratory, a certain number of former senior members of the Los Alamos staff, and a few

CLASSIFICATION CANCELLED
PER DOC REVIEW JAN. 1973

UNCLASSIFIED

[redacted]

Form 25

UNCLASSIFIED

INTER-OFFICE MEMORANDUM

DATE June 3, 1946

TO: MR. N. E. BRADBURY

FROM: R. D. Richtmyer

SUBJECT: Nuclear Physics Conference in August - Page 2

distinguished physicists who have had no previous connection with the Manhattan Project. In addition, provision would be made for other physicists to attend (subject to clearance) at their own expense.

Morning sessions would be devoted largely to presentation and discussion of invited papers on such subjects as experimental evidence on the process of fission, theory of fission, properties of elementary particles, studies of nuclear reactions, especially those involving neutrons, neutron diffusion and multiplication, the water boiler as a tool for research, the fast reactor as a tool for research, cosmic rays, properties of very fast neutrons, properties of very slow ("supercooled") neutrons, neutron optics and spectrometry, studies of trans-plutonic elements, chain-reaction statistics.

Afternoon sessions would be devoted largely to meetings of small groups or committees on particular phases of our research program. Groups would be selected to discuss such subjects as experiments with the cyclotron, experiments with the small Van de Graaf, development of the large Van de Graaf, experiments with the water boiler, experiments with the fast reactor, experiments with cosmic rays (especially cosmic ray neutrons), theory of non-fission reactions, theory of fission, instrumentation.

Informal discussions would doubtless take place on various subjects, such as the organization of the laboratory (relative to nuclear research), collaboration with other laboratories, arrangements for getting some of the conferees back here later on during leaves-of-absence, etc., to work at Los Alamos.

As soon as possible, approval for such a conference should be obtained, invitations and notices should be sent out, clearance procedures should be started, and a few of the former Los Alamos physicists, most familiar with our work, should be asked for help and advice in planning the conference.

R. D. Richtmyer
R. D. Richtmyer

RDR:akl

FINAL DETERMINATION
UNCLASSIFIED
L. M. Redman
OCT 27, 1980

CLASSIFICATION CANCELLED
PER DOC REVIEW JAN. 1973

UNCLASSIFIED

Form 25

UNCLASSIFIED

INTER-OFFICE MEMORANDUM

DATE June 3, 1946

TO: MR. N. [redacted]ADBURY

FROM: [redacted] D. Richtmyer

SUBJECT: Supplement to Memorandum on Nuclear Physics Conference

(Tentative Partial List of Invited Scientists) About 35

Representatives from Oak Ridge (about 5)

Wigner, E. P.
Nordheim, L.W.
Present, R. D.

Representatives from the Argonne (about 5)

Zinn

Representatives from Berkeley Radiation Lab (about 5)

Lawrence, E.O.
Alvarez, L.
Segre, E.
Serber, R.

Representative from Montreal (1?)

Volkoff, G.

Former Los Alamites (about 12)

Oppenheimer, J.R.
Bethe, H.A.
Fermi, E. (May be here as summer consultant)
Rossi, B.
Bacher, R. F.
Williams, J.H.
Allison, S. K.
Christy, R.
Weisskopf, V. F.
Manley, J. H.
(Teller will be here as summer consultant)

Other distinguished physicists (about 7)

Wheeler, J. A.
Rabi, I.
Bloch, F.
Pauli, W.
Gamow, G.

FINAL DETERMINATION
UNCLASSIFIED
L. M. Redman
OCT 27, 1980

CLASSIFICATION CANCELLED
PER DOC REVIEW JAN. 1973

~~SECRET~~

UNCLASSIFIED

Form 25