### THE NEW YORK ACADEMY OF SCIENCES

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2 EAST SIXTY-THIRD STREET NEW YORK 21, N. Y.

7 April, 1952

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EUNICE THOMAS MINER Executive Director

Doctor Leo Szillard Quadrangle Club University of Chicago Chicago, Illinois

Dear Doctor Szillard:

You will no doubt recall your conversation with Doctor Boris Pregel last summer, when he outlined the plans of The New York Academy of Sciences to hold a Conference entitled "The First International Conference on Fundamentals of Engineering Science in the Atomic Age."

The Organizing Committee has now progressed in the development of these plans so that it is able to present a tentative draft of the proposed scope of the Conference, a copy of which is enclosed herewith.

The Committee has requested that I write you and express its hope that you will make constructive comments and suggestions for the program as a whole including both titles and outstanding speakers having authoritative knowledge of subjects which would contribute to a comprehensive and well-rounded conference.

It would be of great assistance if we could receive an expression from you, at an early date, along these lines that the Committee may be guided by your advice and suggestions.

The scientific Conferences organized by the Academy, of which more than eighty have now been held, have established a national and even international reputation for this type of meeting and monographs resulting from them are not only distributed to scientists and institutions throughout the world but have become recognized and valuable in those fields which they cover. The Conference which we are presently interested in organizing will also be of the same caliber and especially is it so guaranteed by the valuable aid of persons like yourself.

I add my personal thanks to those of the Committee for your anticipated cooperation,

Most sincerely yours,

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Executive Director

ETM: V

### TENTATIVE DRAFT OF PROPOSED SCOPE

OF

# FIRST INTERNATIONAL CONFERENCE ON FUNDAMENTALS OF ENGINEERING SCIENCE IN THE ATOMIC AGE

- 1. Nature This International Conference on the function and the education of the engineer in our rapidly changing civilization is intended primarily to bring together the engineers, educators and scientists of the United States with their colleagues from other countries. While it will involve engineers primarily, it is expected that scientists in other fields related to the subject and persons from the industrial world will contribute to the deliberations. The Conference will take place for five days and will be devoted to plenary and section meetings on various aspects of the general subject.
- 2. <u>Purpose</u> The purpose of the Conference is to explore the new problems created for engineers by the technical developments of recent years with respect to their responsibilities, including those of their professional fields, as citizens of their own countries and of the world, and for the training of engineers for the future. Thus, the Conference will be concerned not only with the new requirements of engineering education, but also and perhaps more so, with the questions facing the practicing engineer in meeting a new age. The following problems are among those which will be examined:

  What does the future hold for engineering sciences? What is the relation of engineering sciences to other activities in the community? What are the responsibilities of engineers and what contribution can they make to society? What are the requirements of engineering education to equip engineers to meet these responsibilities in the atomic age?

## SUCCESTIONS FOR AGENDA FOR CONFERENCE ON FUNDAMENTALS OF ENGINEERING SCIENCE IN THE ATOMIC AGE

### The Outlook for Engineering Science

- First Day, Morning Introductory Welcoming addresses and statement by Chairman of the Conference on its purpose and procedure.
  - Afternoon What the future holds for engineering science. This session consists of addresses by leaders in the respective fields indicated who would deal with the impact of the likely future developments in their field on engineering science.
    - (a) domestic affairs:
      - (b) international affairs;
    - (c) educational trends;
- (d) the physical sciences;
- (e) biological sciences; (f) mathematical science.

## Educating the Engineer for the Atomic Age

(detailed programme to be worked out in consultation with specialists in engineering education.)

- Second Day, Morning -Plenary Session Devoted to the broad aspects of interest to engineers in all fields regarding educational requirements for the engineer in the atomic age.
  - Afternoon -Section Meetings Devoted to specialized aspects of the requirements for engineering education.

## International Aspects of Engineering Science

- Third Day, Morning Plenary Section The international responsibilities of engineers. A session devoted to inter-relations between engineers of various countries, covering such topics as:
  - (a) engineers and technical assistance for lessdeveloped countries; (b) methods for improving the international exchange of engineering knowledge.
- Third Day, Afternoon Section Meetings International developments in engineering science. A series of meetings devoted to reports by international delegates to the Conference on developments in their particular countries and various fields.

# The Relation of Engineering Science to Other Disciplines

Fourth Day, Morning - Plenary Session - A series of papers on the interrelations between developments in engineering and
those in other fields, such as the relation of
engineering to conservation of renewable resources;
technological developments and economic problems;
how to shorten the interval between the laboratory
and practical applications, the most effective
integration of science and engineering.

Fourth Day, Afternoon -Section Meetings - Devoted to such questions as

(a) Structural, Mechanical and Electrical Design

Problems of the Engineer in the Atomic Age.

(b) Metallurgical and Chemical Engineering

Problems in the Atomic Age.

(detailed programme to be worked out in consultation with specialists in various branches of

#### Conclusions

Fifth Day, Morning - Plenary Session - The Civic Responsibilities

of the Engineer in the Atomic Age.

The Sociological Problems of the Engineer in
the Atomic Age.

engineering.)

Fifth Day, Afternoon - Plenary Session - Summary and Formulation of Recommendations.

April 21, 1952

Miss Eunice Thomas Miner Executive Director The New York Academy of Sciences 2 East Sixty-Third Street New York 21, New York

Dear Miss Miner:

Many thanks for your very kind letter of April 7th regarding the Conference on Engineering Science. I believe that you would find that Professor Richard L. Meier, Committee on Program Planning, University of Chicago, and Professor Harrison S. Brown, California Institute of Technology, might be able to make useful contributions to the planned Conference. Dr. Brown is very much interested in the general problem of natural resources from the point of view of underdeveloped areas, and Dr. Meier is also very much interested in this problem. This would tie in with your conference planned for the morning of the third day, and Dr. Meier would also be interested in "Methods for Improving the International Exchange of Engineering Knowledge". Dr. Meier should be able also to contribute to the session planned for the morning of the fourth day.

I wish, however, to raise the following question with you. Last October we had an International Conference on Nuclear Physics here in Chicago, which was sponsored by the Navy. We found that some of the distinguished men, whom we thought would be able to obtain visas without any difficulty, were in fact unable to obtain visas. These included Professor Oliphant, the leading physicist of Australia, Professor Pierre Auger, onetof the directors of UNESCO,

Professor Peierls of Birmingham, England, a distinguished theoretical physicist, etc. Both Peierls and Auger were finally able to come to the Conference, but only because Auger was able to come on a UNESCO mission and Peierls was sent on a diplomatic mission by the British government. I understand that under the present system, more than two-thirds of the French scientists are excluded by the American consul in Paris on the grounds that they have belonged at some time or other to some organization which is now considered subversive.

In these circumstances, I would like to suggest that you give serious consideration to the possibility of holding your Conference in Toronto rather than in New York. American scientists do not require a passport to go to Canada, and distinguished scientists and engineers will have no difficulty in obtaining Canadian visas.

If I can help you with any further suggestions, please don't hesitate to call on me.

Sincerely yours,

Leo Szilard

LS/sds cc: Mr. Boris Pregel

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12 May, 1952

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EXECUTIVE DIRECTOR

Doctor Leo Szilard
Institute of Radiobiology and
Biophysics
The University of Chicago
Chicago 37, Illinois

Dear Doctor Szilard:

I have at hand your letter of April 21st and thank you most sincerely for the suggestions which you have made of persons who may be able to make contributions to the "First International Conference on Fundamentals of Engineering Science in the Atomic Age." Your letter shall be presented to the Organizing Committee for this Conference at its next meeting.

It is deeply regrettable that in many instances outstanding foreign scientists are unable to obtain visas to come to this country. The situation is an extremely difficult one, but it would seem that those who cannot obtain visas simply cannot be included in the Conference. The Academy finds it necessary to hold Conferences in New York that they may be directly under its auspices. In this way we are able to make use of the Academy Building for establishing cordial relationships and spirit among those attending and participating in the meetings.

Permit me to thank you again for your great help in forwarding the work of the Organizing Committee.

Most sincerely yours,

Executive Director