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Scientific Conf. on Atomic Energy

Memorandum on Procedure and Time-schedule for
the International Conference on Peaceful Uses of Atomic Energy

Memorandum on Procedure and Time-schedule for the International
Conference on Peaceful Uses of Atomic Energy

In order to plan the procedure and time-schedule for the preparation of the conference it is necessary to work on the basis of some preliminary assumptions regarding the purpose and the form of the conference. The Draft Resolution leaves a number of questions to the Secretary-General to decide upon with the advice of the Advisory Committee.

Views about the purpose and the form of the conference have been expressed by members participating in the debate on the item, by the group of sponsors, by the Secretary-General and by the European Atomic Energy Society.

The views of the sponsoring group were set forth in their explanations of the draft resolution. The essentials of their views are reflected in the unofficial preliminary agenda, suggested by this group as follows:

Plenary Session	Social and Economical Aspects of Nuclear Power (2 days)
Session 1	Nuclear Reactors (3 days)
Session 2	Nuclear Technology (3 days)
Sessions 3 and 4	Biological, Medical and Industrial Applications of Isotopes and Radiation (3 days)

Since subsessions can be held simultaneously, the duration would be 5 days (or one week including social events).

The views of the Secretary-General were presented in his note A/C.1/758 on arrangements for the Scientific Conference. His views are in general agreement with the preliminary agenda of the sponsors. However, in his view, sessions 3 and 4, on Biological, Medical and Industrial Applications of Isotopes would be restricted to the actual problems of production of isotopes, which is logically more correct since the application of isotopes today includes the whole field of natural science and technology, without limits.

The views of the Atomic Energy Commissions in the eight nations represented in the European Atomic Energy Society (Belgium, France, Italy, the Netherlands, Norway, Sweden, the United Kingdom) are presented in the following paragraphs of a letter to the planners of the conference, describing views expressed by the European representatives:

"1. The main subject of the proposed international conference should be industrial applications of atomic energy, primarily power production. It should be made clear that the purely scientific fields of nuclear research, which are already adequately covered by regular conferences should only be part of the program in so far as they form a natural background for the main discussions.

In order to steer the conference along lines which could give some concrete and valuable results it was thought that one should also limit the field of interest to one in which not only the technologically most advanced countries could make contributions. Such a field was agreed to be questions concerning economical possibilities of nuclear power in different parts of the world. It was therefore suggested that the subject of the conference could be: "Economical and Social Aspects of Atomic Energy."

One basic condition was deemed necessary, however, for such a conference to carry any interest. It would be required to have a certain minimum of specific information about some seriously planned atomic power stations. Unless such information could be presented, intelligent discussion would be impossible.

A preliminary suggestion would be to take a couple of days^{for} discussing the subject of "Economical and Social Aspects", during which time several countries could present their special characteristic conditions. Further, some time could be devoted to nuclear technology, which could possibly be divided in sessions on "Chemical Engineering and Metallurgy" on one hand, and "Reactor Engineering" (design, operation) on the other.

One might perhaps include industrial applications of fission products and radiation.

2. Concerning the size of the meeting, it was emphasized strongly by all present at the Paris meeting, that the number must be kept down as much as possible if the conference shall have the character of an international discussion and not of a pre-arranged propaganda meeting. The number 1000 was mentioned as being on the high side."

The three views specifically referred^{to}, together with the other views expressed in the debate on this item, are sufficiently in agreement to form from them a working program on which to base the procedure of preparing the conference.

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It is essential that the planners know the purpose of the conference. From what has been expressed in the quarters mentioned one might conclude that the purpose of the conference is:

- a) to present facts about the present status of Atomic Energy development for industrial uses and to form a well founded forecast about developments in the next 20 years;
- b) to present facts about the present situation with regard to conventional power in each participating country and about the plans for development during the next 20 years;

- c) to clarify the possible future role of atomic energy in different parts of the world in the next 20 years; and
- d) to bring out the possible practical efforts which, on an international basis, might support and accelerate the development in those areas where atomic energy appears to have an important future in the next 20 years; this last purpose would involve a thorough scientific and technical discussion on the technology in the field of reactors.

With a conference whose purpose would be somewhat along the general lines suggested, the program could logically be divided into three parts:

1. Economical Aspects of Atomic Power.

- a) Three or four specially invited experts to prepare papers giving basic calculations of cost of atomic power plants, both describing special plant types and giving general considerations.

These papers should be circulated to representatives to the conference three months in advance.

- b) Each government to present a paper giving information on the national situation regarding:

- b.1) conventional power today, and predictions for the next 20 years, including prices, types of power and plans for power plant constructions;
- b.2) atomic energy, including raw material sources, technical and industrial background, actual projects and plans for projects; and
- b.3) comparison of atomic energy and conventional energy based on the papers presented under a).

These papers would be published after the conference together with the general conference proceedings.

2. Power Reactor Design and Operation

- a) Five or six specially invited experts to prepare papers presenting possible atomic power reactors and their operating characteristics.

These papers should be circulated to representatives three months in advance.

b) Each government may present a paper discussing special aspects of the reactor projects presented.

These papers would be published after the conference together with the general conference proceedings.

3. Technology of Atomic Energy Engineering

This subject is so wide that it should be allotted three sub-sessions which would run simultaneously:

- a) Fuels, including metallurgy of uranium, thorium, plutonium; processing of used fuels, extraction of fission-products; properties of uranium solutions, suspensions and alloys.
- b) Construction materials, including corrosion problems and general metallurgy of reactor materials like zirconium, aluminium, magnesium, beryllium; also production of moderating materials like heavy water and graphite.
- c) Research reactors, including complete plans for different types with emphasis on special uses, as materials testing, isotope production, neutron physics, solid state studies, breeding studies and power research.

Papers for section 3. should be invited from all participating countries, and preliminary drafts should be screened and selected for presentation by the Secretary-General. The final papers should be published after the conference together with the proceedings of the conference.

Time Schedule

- Dec. 6, 1954 Secretary-General writes to seven members of Advisory Committee requesting designation of their representatives.
- First week in Jan., 1955 Advisory Committee meets for 3 to 4 days to agree on recommendations concerning:
- a) time of conference
 - b) two or three possible locations to be closely studied
 - c) preliminary agenda
 - d) experts to be invited to give basic papers
 - e) countries and organizations to be invited to participate and to prepare draft papers for section 3 before May 1st, 1955.
- Last week in Jan., 1955 Advisory Committee meets to:
- a) make final recommendations on location
 - b) formulate proposal for detailed agenda
 - c) recommend finally on authors of basic papers.
(Manuscripts to be ready by May 1st)
 - d) discuss with Secretary-General the organizational questions concerning housing, transportation, social events, publicity relation a.e.o.
- May 1, 1955
- a) Invited basic papers received
(Advisory Committee to recommend on acceptance of basic papers)
 - b) Circulation of basic papers to participants with invitation to present drafts of commentaries (sections 1 and 2) by August 1st.
- Draft papers for section 3 received, and circulated to Advisory Committee for study.
- c) Recommendations on chairmen and conference officials, invitations to be sent and answered before June 1st.

- June 1, 1955 a) Final section of papers for section 3.
 b) Selection of chairmen and officials.
- Aug. 1, 1955 Commentaries (sections 1 and 2) received.
 Acceptance decided upon before August 15th.
- Aug. 15, 1955 Final detailed program prepared and circulated.