



International Atomic Energy Agency

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ANNUAL REPORT TO THE GENERAL ASSEMBLY OF THE
UNITED NATIONS FOR THE YEAR 1964-65

Explanatory Note

1. By Resolution GC(IX)/RES/187 the General Conference decided that the Agency's Annual Report to the General Assembly of the United Nations for 1964-65 would consist of the annual report of the Board of Governors to the General Conference for 1964-65, together with a supplement.
2. The annual report has been issued as document GC(IX)/299. The present document contains the supplement which deals with developments in the Agency's work during the period 1 July to 1 October 1965, including action taken by the General Conference at its ninth regular session which took place in Tokyo from 21 to 28 September 1965.

SUPPLEMENT TO THE ANNUAL REPORT OF THE BOARD OF GOVERNORS
TO THE GENERAL CONFERENCE FOR THE YEAR 1964-65

A. Membership of the Agency

3. On 12 July 1965 Kenya became the 93rd Member of the Agency. At its ninth regular session in Tokyo in September the General Conference approved applications for membership of the Agency by Jamaica and Jordan.

B. Technical work

4. In the domain of technical assistance the Agency held two further training courses: one jointly with the Food and Agriculture Organization (FAO) at Cornell University in the United States of America on the use of radioisotopes in animal science and veterinary medicine, and another in Copenhagen with the International Labour Organisation (ILO) on radiation protection in industry.

5. Amongst the more important missions that the Agency sent out were:

- (a) An expert team to Tunisia to advise on the safety aspects of a site of a proposed nuclear plant to produce fresh water and electricity;
- (b) A mission to Argentina to review the progress of a nuclear power feasibility study that the Government is making. The mission also visited Brazil; and
- (c) A mission to Turkey to study the country's present and future power needs and the extent to which nuclear power may meet them in the period up to 1978.

6. The Agency held four further scientific meetings:

- (a) A symposium together with FAO on the Use of Isotopes and Radiation in Soil-Plant Nutrition studies. This was the second scientific meeting on the subject. It showed that these techniques would be particularly useful in obtaining more information on growth of such important food crops as rice, maize, oats, barley, wheat, olives, vines, and field and soya beans;
- (b) A symposium on the effects of changes of temperature and particularly of intense heat on materials used in building and fuelling nuclear reactors. [1] To increase the efficiency of nuclear power stations they are being designed to operate at higher temperatures and this makes it necessary to study the effects of intense heat and large temperature changes on the metals, alloys and other materials used in reactors. The symposium brought together research workers and design engineers;
- (c) A symposium on Nuclear Materials Management. [2] Special methods are needed to deal with nuclear materials because of their high value and the peculiar hazards they involve. The symposium discussed the latest developments in systems for controlling such materials, techniques for analysis and measurement, means of checking production and consumption and related topics. These discussions were also useful for the further development of the Agency's safeguards system; and

[1] Symposium on Thermodynamics, with Emphasis on Nuclear Materials and Atomic Transport in Solids: Vienna, 22-27 July 1965.

[2] Vienna, 30 August-3 September 1965.

- (d) A Conference on Plasma Physics and Controlled Nuclear Fusion Research. [3]
The ultimate objective of research in this field is to hold an assembly of hot ions and electrons (a plasma) in isolation in such a way that more energy is obtained from the plasma than that needed to hold it together and heat it. Because of its extremely high temperature, plasma must be isolated from any contact with physical containers, and the best way of doing this still appears to be by trapping the plasma in magnetic fields. The conference showed that there has been a considerable advance in experimental techniques since the first Agency meeting in Salzburg in 1961, and scientists now generally agree in interpreting phenomena observed in major experiments. However, there are still many fundamental difficulties to be overcome before science can give a definite answer to the question whether it will be possible to make a controllable nuclear fusion reactor to produce electric power. More than 270 of the world's leading specialists in nuclear fusion from all parts of the world attended the meeting.

C. Safeguards

7. In September 1965 the Board of Governors approved the Safeguards Transfer Agreement relating to the bilateral agreement between the Governments of Canada and Japan for co-operation in the peaceful uses of atomic energy.
8. Agreements, whereby the United States will transfer a nuclear reactor and fuel to Uruguay through the Agency, were approved by the Board on 17 September and signed on 24 September 1965.

D. The ninth regular session of the General Conference

9. At the invitation of the Japanese Government the General Conference met in Tokyo from 21 to 28 September 1965; the first session to be held away from Vienna. Its principal decisions are summarized below.
10. In Resolution GC(IX)/RES/186, which was adopted unanimously on 27 September, the General Conference "noted with satisfaction" the revised safeguards system which had already been provisionally approved by the Board. It also asked the Board to take into account views expressed in the General Conference and to report on such reviews of the safeguards system as are periodically undertaken by the Board. By this resolution the General Conference concluded a major review of the Agency's safeguards system which was started as a result of Resolution GC(VII)/RES/144 adopted in September 1963.
11. The General Conference approved the Agency's Regular Budget for 1966, in the amount of \$8 744 000, or approximately 10% more than the 1965 budget; approved allocations of \$2 478 000 under the Operational Budget; and decided that the target for voluntary contributions to the General Fund for 1966 should be \$2 million, as has been the case since 1962. The General Fund is chiefly used to finance the Agency's own technical assistance activities.
12. The General Conference further approved the appointment by the Board of Dr. Sigvard Eklund to the post of Director General of the Agency for a second term of four years.
13. In Resolution GC(IX)/RES/197 [4], the General Conference requested the Director General, "in concert with the United Nations and the specialized agencies concerned, to initiate a study as to how the Agency might intensify its efforts and play an increasingly useful role in the development of water desalination". The Member States of the Agency were requested "to continue to report to the Director General all significant developments relative to the use of nuclear energy in desalination so that he may promptly communicate this information to other Member States".

[3] Culham Laboratory, United Kingdom, 6-10 September 1965.

[4] The text of the resolution is reproduced in the Annex to this supplement.

A N N E X

Text of Resolution GC(IX)/RES/197 adopted by the
General Conference on 28 September 1965

THE APPLICATION OF NUCLEAR ENERGY TO THE DESALTING OF WATER

The General Conference,

- (a) Recognizing the important role nuclear energy may play in achieving the economic desalination of water,
 - (b) Noting Resolution 1069 (XXXIX) of the Economic and Social Council of the United Nations in which the Secretary-General is requested "to explore further possibilities, in consultation with the specialized agencies concerned and the International Atomic Energy Agency, for accelerating progress in the over-all water desalination effort and its practical application in water-short areas",
 - (c) Noting the increasing number of studies being undertaken in Member States concerning desalination,
 - (d) Noting with satisfaction that the Agency is being requested to participate in many of these activities,
 - (e) Noting with satisfaction the Agency's series of panel meetings on the use of nuclear energy for desalting,
 - (f) Noting further that a number of Member States, including the United States of America and the Union of Soviet Socialist Republics, have initiated exchanges of information on desalination [1] and have arranged for the Agency and its Members to receive benefits in full measure from this co-operation, and
 - (g) Aware that the important growth of interest in this field will be reflected in the Agency's programme in future years,
1. Requests the Director General, in concert with the United Nations and specialized agencies concerned, to initiate a study as to how the Agency might intensify its efforts and play an increasingly useful role in the development of water desalination, and to keep the Board of Governors informed of developments;
 2. Further requests the Director General, in preparing the draft biennial programme for 1967-68, to reflect any conclusions from this study which have been reached early enough to be included; and
 3. Requests the Member States of the Agency to continue to report to the Director General all significant developments relative to the use of nuclear energy in desalination so that he may promptly communicate this information to other Member States.

[1] See document INFCIRC/60.