

Naturally WMO's closest collaboration in the atomic energy field has been with the International Atomic Energy Agency. From its inception in 1957, the Agency has sought the views of WMO on all matters of common interest and, in August 1959, an agreement between the two bodies officially came into force. A spirit of friendly co-operation has, at all times, characterized the joint activities of these organizations.

The agreement between IAEA and WMO provides for representation of one at appropriate meetings of the other body and, in conformity with this provision, the Agency was represented at the last meeting of the WMO panel as well as at meetings of higher WMO bodies. Similarly, WMO has taken part in various IAEA meetings, at the last of which the question of the collection and analysis of radioactive materials in the biosphere was discussed. In November 1959 WMO took part in a scientific conference on the disposal of radioactive wastes held under the joint sponsorship of IAEA and UNESCO. Various possibilities including the use of oceans, glaciers and the soil for the disposal of these wastes were studied and the problems and consequences of each method were fully discussed.

More recently, the co-operation of WMO was sought by IAEA in connection with the initiation of a program to determine the world-wide distribution of hydrogen and oxygen isotopes in water. This project, which concerns the investigation of the distribution of hydrogen and oxygen isotopes in rain, in rivers, in groundwater and in oceans is a very important line of research in two large groups of problems which are intimately connected with the circulation of water in nature. One is the proposed use of continental water sources for technical and agricultural production and the other is the disposal of radioactive wastes on land and in the sea. The combination of the results of isotopic studies of water with the results of meteorological, geological, hydrological and oceanographical research will provide quantitative information on the circulation of water in nature.

The IAEA study will include the collection of water samples, isotopic analysis and the preparation and provision of international standards of tritium water. WMO has been requested to invite meteorological stations to collect and send monthly water samples to certain specialized laboratories for analysis. A proposed list of about 120 stations throughout the world which will be invited to collect samples has been drawn up and full WMO support will be given to the IAEA project.

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## JOAQUIM DA COSTA RIBEIRO



The death occurred in Rio de Janeiro on 29 July 1960 of Professor Joaquim da Costa Ribeiro, the distinguished Brazilian scientist who was the first Director of IAEA's Division of Exchange and Training. He was 54.

Before joining the Agency, Professor Costa Ribeiro was Head of the Department of Physics, Faculty of Sciences, Federal University, Rio de Janeiro, and had previously held several other senior positions in academic and administrative spheres. He had been President of the Atomic Energy Commission of the Brazilian Research Council and a member of the United Nations Advisory Committee for Peaceful Uses of Atomic Energy.

Professor Costa Ribeiro directed IAEA's Division of Exchange and Training from 15 February 1958 to 15 November 1959 - a period during which the Agency planned, initiated and established its operational programs, and it was largely due to his untiring effort and able handling that the training and fellowship program rapidly developed into one of the most important and fruitful of the Agency's activities.

Not the least of Professor Costa Ribeiro's many qualities were a great personal charm and a high idealism of purpose. His devotion to the aims and activities of the Agency sprang from a deep faith in the value of international co-operation in promoting the peaceful uses of atomic energy throughout the world. He voiced his conviction even in his last public utterance - in his opening address as General Chairman of the Third Inter-American Symposium on Peaceful Uses of Atomic Energy - extracts from which are reproduced below:

"One of the most important factors for accelerating the generalized use of atomic energy for peaceful purposes is certainly the development of international co-operation.

"An excellent example of the validity of this assertion is the amount of services already delivered to many countries all over the world through the successful operation of the International Atomic Energy Agency, during its first three years of existence. ....

"The first step to accelerate the industrial production of nuclear power is for each country to study very carefully and seriously its own specific conditions and its own specific needs in order to be able to formulate objectively its own problems and to establish on a concrete basis its own national atomic programs, and this should be done not by a mere duplication of what has been already done but by the intelligent utilization of the experience of other countries and by

increasing such experiences with the results of its own studies and of its own experiences.

"In this domain International Organizations and the specialized agencies of the United Nations are in an exceptionally good position to help each individual country through the exchange of scientific and technical information, the sending of experts, the training of specialized personnel and the access to special materials and equipment. ....

"Other not less important aspects of this international co-operation are: the training of an increasing number of specialists, the readaptation of university curricula, the granting of fellowships, the exchange of visiting professors and experts, the installation in the different countries of research reactors with its complementary laboratories and the efficient utilization of such installations for the study of the specific problems above referred to.

"It is absolutely necessary for each nation, with the assistance of its brother-nations, and of the international organizations which already exist, to increase substantially its human potential in scientists and engineers, capable of studying the specific conditions of each area for the establishment of nuclear power, of finding the most economic and convenient solution in each case, and of developing the multiple applications of the by-products of atomic energy, i. e. the radioisotopes and its radiations, to medicine, public health, agriculture, biological, chemical and other scientific research, and to the various possible industrial activities."

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## NEW PUBLICATIONS

The latest publications of the International Atomic Energy Agency include the proceedings of three important scientific meetings held by the Agency: the Conference in Warsaw in September 1959 on the application of large radiation sources in industry, and especially to chemical processes; the Conference in Monaco in November 1959 on the disposal of radioactive wastes; and the Symposium in Vienna in October 1959 on the metrology of radionuclides.

The publication on the use of large radiation sources in industry\* is the first of two volumes of the proceedings of the Warsaw conference which was held to facilitate an international exchange of information and views on this subject of growing importance. In a foreword to the publication, the Agency's Director General, Mr. Sterling Cole, states: "Uses of radiation in industry are among the most effective

ways in which atomic energy can help economic development. The benefits to industry, which are already substantial, have so far been mostly derived from the application of radioisotopes and other small sources of radiation as tools of scientific investigation, detection, measurement or control. The use of radiation as a direct agent in initiating industrial processes, which has now become possible with the availability of large radiation sources, will perhaps result in ever greater and wider development".

Work in this new field of research and development has already been undertaken in some countries and a beginning is being made in others. The Conference in Warsaw was the first international meeting at which the whole subject was reviewed in detail. About 200 prominent scientists from many countries and representing many disciplines but with common interests in this field listened to and discussed more than 60 contributions.

The papers presented, as well as records of the discussions, are being published by the Agency

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\* *Large Radiation Sources in Industry, Vol. I.* 480 pages. Price US \$4.50; 27 s. stg.; Sch. 94.50.