

Excerpts from the Director General's Address to the 20th General Conference

The General Conference of the International Atomic Energy Agency was held in Rio de Janeiro, Brazil, in September. In his opening speech, the Agency's Director General, Dr. Sigvard Eklund, reviewed the development of the activities of the IAEA and made the following remarks:

Cheap energy is a must for maintaining the status of the industrialized society and a necessity for the developing countries to improve their standard of living. In this situation IAEA's task is to point to nuclear energy as the only alternative energy source which is immediately available and to ensure the safe and economic operation of nuclear power plants. As fossil fuel costs increase above a certain level, the economic advantage of nuclear power plants becomes obvious; however, there are other restrictions than economic ones to the expansion of nuclear power. In order to remove some of the still prevailing uncertainties concerning the nuclear fuel cycle, the IAEA will hold a major international conference in May 1977, in Salzburg, Austria, to review every stage of the nuclear fuel cycle.

Information exchange. IAEA's International Nuclear Information System (INIS) has become the world's main channel for the effective flow of nuclear information. IAEA now is also setting up a computerized data bank to collect data mainly on nuclear but to some extent also on other forms of energy. This data bank will help the Agency in making surveys for individual States as well as for the world as a whole. The IAEA provides advisory missions to Member States, including planning of power systems and, for this service, requires competence in other energy fields. Such a comprehensive approach may render unnecessary the creation of additional international organizations in this field.

Uranium resources. A year ago there was still grave concern about the adequacy of the world's uranium resources, enrichment and reprocessing capacity. It is now estimated that the world's resources amount to about 3.5 million tons. We must continue to discover new resources at a rate of approximately 150 000 tons per year over the next 15 years; this is also true for Latin America which now accounts for only 2.5 percent of the assured and estimated uranium resources of the world. IAEA therefore continues to give main emphasis to uranium prospecting in its technical assistance programme. More effective

international co-operation on the concept of breeder reactors could further alleviate this situation.

Regional nuclear fuel cycle centres. The results of the Agency's on-going study on Regional Fuel Cycle Centres will be reported to the Salzburg Conference on Nuclear Power and its Fuel Cycle which will be held next year. A document on institutional and legal aspects of such centres has just been issued, which could be helpful to Member States considering participation. Preliminary results of the study indicate that such centres may offer advantages as to economics, safety and physical security.

During the next 10 to 20 years, the accumulation of plutonium will become an increasing world-wide problem. The IAEA Statute foresees the deposit of surplus plutonium in IAEA-operated storage facilities. The Secretariat is presently studying the problems of international plutonium management.

Safety and environment. The Agency will vigorously pursue its efforts to develop safety codes and guides for thermal power reactors and it is hoped that this work will soon remove the doubts which still remain regarding reactor safety. In this regard the Agency will closely follow the public debate on the acceptance of nuclear power. It is hoped that the study on the impact of different energy sources on the environment, which is carried out by the International Institute for Applied Systems Analysis (IIASA), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO), will help clarify the issue involved.

A vigorous research and development effort is required to surmount the still existing problems in radioactive waste management. Here the Agency should play a useful role, by arranging the exchange of information, co-ordinating research and development work and studying the concept of multi-national deposits of radioactive waste in favourable geological conditions. An expansion of the Agency's present activities seems highly desirable.

Safeguards. While the IAEA's initial safeguards system dealt only with research reactors, it has gradually been elaborated to cover all sizes and types of nuclear installations and material. In fact, with the recent expansion of nuclear power, the Agency's safeguards tasks have grown faster than any other of its programmes. For the first time in history, a recognized international safeguards system has been established; it may not be ideal, but it can and will be improved if the Agency gets full support in its endeavours. In order to enable the inspectors to be more fully utilized, the establishment of safeguards field offices is being considered and it is hoped that Member States will co-operate in this effort.

The number of parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has grown to 100, which means that all major industrial non-nuclear weapon States have accepted the NPT and the IAEA safeguards regime connected with it. However, a small group of countries with significant nuclear activities still remains outside. The time may now be ripe for these countries to re-examine their reasons for doing so and to join the NPT system, thereby making an important contribution to regional and international security. In this context the crucial importance of a complete cessation of all nuclear weapon tests should also be recalled.

It should also be recorded that the NPT agreement between the Agency and EURATOM and the States concerned, which was approved at the time of the General Conference in Mexico

in 1972, still has not entered into force. The time limit set by the Treaty for the entry into force of this agreement will expire early in November 1976; it is very much hoped for that the agreement will come into force before then.

During the past year, safeguards agreements have been concluded outside the scope of NPT, which relate particularly to the transfer of technological information. Also technical assistance tends to cover more and more the transfer of sensitive technological information, which once given away can never be retrieved. This is a new and difficult situation. The IAEA attempts to ensure that whenever its technical assistance includes sensitive technological knowledge, the relevant nuclear activities in the country concerned are covered by safeguards agreements. However, if the manufacturing States wish to be absolutely sure that certain States will not develop a nuclear technique of their own towards nuclear explosives, they must make it an irrevocable condition of supply of nuclear material or equipment that the receiving State accepts IAEA safeguards on its entire nuclear programme. The Agency is preparing the draft of an agreement that would serve as a starting point for negotiations with any country that is ready to accept such full fuel cycle safeguards.

Since the establishment of the NPT, the possibility of using nuclear explosive devices for peaceful purposes has attracted much attention. As foreseen by Article V of the NPT, the IAEA is giving advice to Member States on technical, safety and legal aspects and will assist Member States in evaluating peaceful nuclear explosion projects.

Technical Assistance. The Agency has always been trying to maintain a proper balance between its promoting and its safeguarding activities. Sometimes this dual role has been questioned, but in the IAEA the nature of the activities is such that their promotional and regulatory aspects are inseparable. Much of IAEA technical assistance is, in fact, designed to support the regulatory activities of the countries themselves so as to ensure that their programmes are safely conceived and implemented.

Member States' contribution to the Voluntary Fund, which is destined for technical assistance, has risen to 5.5 million dollars in 1976. In terms of purchasing power this increase is not very large and all Member States are called upon to contribute in cash and in kind to this programme. It would be appreciated if Member States who donate equipment would also supply spare parts. As a matter of priority, the IAEA is taking steps to facilitate the provision of spare parts for all institutions requesting assistance.

The major problem for countries on the road to nuclear power is how to find the money for the plant and how to build up a staff of trained managers, engineers and safety personnel. As regards training, the Agency has initiated a major programme. Four large training courses have been held since the beginning of last year and they will be continued to ensure that adequate training is offered each year to developing Member States for about 150 to 200 engineers.

Conclusion. The IAEA has sometimes been commended for efficiency. Part of this credit is due to the Agency's ability to respond promptly to emerging new situations, when "project teams" had been pooled together from different divisions of the Secretariat to deal with a specific problem. Examples for this are: the Market Survey Study, the Regional Nuclear Fuel Cycle Centre Study and the Nuclear Safety Standards Project. This "project approach" could be used even more widely in the future.