DEVELOPING NUCLEAR LAW

Many aspects of nuclear energy pose special problems for the lawmakers because of the unusual materials and processes involved. Much of it calls for international agreements to protect people, to guard against military exploitation of peaceful work, to promote trade in the new industry, to increase collaboration and to encourage new projects. Mr. Werner Boulanger, Director of the IAEA Legal Division, here indicates the part played by the Agency and other international organizations in securing compatibility of legislation.

[This article is extracted from a lecture given at Agency Headquarters to the first fully international course on the legal aspects of nuclear energy. For reasons of space we have had to omit an outline of many developments, including the first national law (New Zealand, 1945); the laws of 1946 and 1954 in USA and the legal implications of many bilateral agreements; and the evolution in the United Nations of the concept of an International Atomic Energy Agency.]

In speaking of nuclear law I propose to define it as "the law related to the peaceful uses of nuclear science and technology".

The purpose and function of nuclear law is that of all law, namely to promote and to protect; to promote the development of nuclear science and technology and to protect mankind against any hazards possibly connected therewith.

On the promotional side of the palette we find many kinds of public measures, such as outright subsidies for nuclear research and development, tax preferences for nuclear installations and nuclear insurance, indemnity and public coverage schemes for nuclear liability, "channelling" of liability for nuclear damage and other provisions which will be mentioned in the course of lectures to come.

On the protective side, nuclear law has two distinct aspects — the protection against radiation hazards connected with the peaceful application of nuclear energy and radioactive substances, and the prevention of non-peaceful uses of nuclear energy by means of the safeguards system developed for that purpose.

Which is the position of nuclear law in the wide realm of the law? It is, and has been right from its beginning, national law and international law. It is national public law in its constitutional, administrative, criminal and public health aspects. It is national private law as it regulates liability for nuclear

damage. It may, by reserving certain kinds of source or other radioactive materials to public property, trespass by public law into what would normally be the field of private law.

It is international public law as it creates international intergovernmental organizations, and endows them with legislative powers or authority to "safeguard" the peaceful uses of nuclear materials and installations. It is international private law as it regulates civil liability for nuclear damage in various international conventions.

This list could certainly be expanded and split off further. The examples are intended merely to show that nuclear law does not have a clearly circumscribed position, but reaches into very many different fields. Nevertheless, nuclear law has achieved a status of its own. This makes it worthy of special consideration and treatment, always remembering that it is just one tiny segment of the law in general.

One important event, which had less to do with the development of nuclear law but more with the development of international co-operation and the exchange of nuclear information, was the first International Conference on the Peaceful Uses of Atomic Energy, held in Geneva in September 1955. More than 1400 delegates attended from 73 nations and more than 1000 scientific and technical papers were presented. The effects of this Conference can still be told by looking at the dates at which many national and international organizations in the field of nuclear energy were founded.

The Statute of the International Atomic Energy Agency was adopted by an International Conference in New York on 23 October 1956. In July of the same year the Council of the Organization for European Ecocomic Co-operation (OEEC), now OECD, had established the Steering Committee for Nuclear Energy and charged it with setting up the European Nuclear Energy Agency (ENEA). The European Atomic Energy Community (EURATOM), was founded by the Treaty of Rome of 25 March 1957, and started operation on 1 January 1958.

EURATOM (members: Belgium, France, Federal Republic of Germany, Italy, Luxembourg, Netherlands) is a supra-national organization. As such it has certain legislative powers in particular in the field of health and safety. The treaty also provides for a central supply agency, thereby creating a monopoly of all fissionable material produced in or imported to the Community. EURATOM is owner of all such materials. Its control functions are linked to this ownership. The Treaty provided further for the establishment of so-called "Common Enterprises", which have certain obligations to the Community but also enjoy certain privileges, among them tax privileges which they could not enjoy under national law. A particular activity of the Community is the exchange of information, including even secret patents. A legal device for technical co-operation within the Community which I find of special interest is the so-called "Association Contract".

Plutonium from spent reactor fuel is weighed at the Nuclear Fuel Services Plant in New York and the details recorded by an Agency Safeguards inspector. The need to regulate the use of atomic energy for peace gives nuclear law its international and public aspect. Photo: USAEC

The European Nuclear Energy Agency consists of 18 Western European members and 3 associate countries (Canada, Japan, United States). It has played a considerable role in the creation of "joint undertakings".

The first was the European Company for the Chemical Processing of Irradiated Fuels (EUROCHEMIC) at Mol, Belgium. EUROCHEMIC is an independent international share-holding company with its own legal personality. It was created by an international convention. Later, other international projects such as the Halden experimental boiling water reactor in Norway, the Dragon reactor project at Winfrith, United Kingdom, the Seibersdorf Food Irradiation Project in Austria, the Nuclear Data Compilation Centre at Saclay, France, and the ENEA Computer Programme Library at Ispra, Italy, were founded. One finds that a new sector of nuclear law has evolved from the range of techniques used in the formation of such joint projects and through the concepts developed in their administration and those relating to the use of information derived from their operation. ENEA has also its own safeguards system and the European Nuclear Energy Tribunal can decide disputes arising out of its application.

ENEA has caused its Member States to adopt legislation by which premiums paid on nuclear insurance received a certain preferential tax treatment

in order to enable insurance companies to build up reserves faster. This demonstrated how law can contribute to the promotion of nuclear economy.

The International Atomic Energy Agency (IAEA), founded in 1957, was envisaged as a means to guarantee adequate and equal supply of nuclear material to Member States and as an instrument to safeguard the peaceful uses of atomic energy. The first purpose lost importance when uranium sources turned out to be plentiful. Nevertheless, by fostering assistance projects and by developing standards for health and safety norms, the Agency contributed to the development of nuclear energy in its Member States and to the development of nuclear law.

IMPORTANT ASPECTS OF LAW

All three organizations have equally contributed to a very important aspect, namely the International Conventions on Third Party Liability for Nuclear Damage. The first such convention, the so-called Paris Convention, was created by the European Nuclear Energy Agency and signed in 1960. It entered into force as the first of several conventions on 1 April of this year.

The IAEA convened an International Conference in 1963 which elaborated a world-wide Convention on Civil Liability for Nuclear Damage. This Convention has so far received four ratifications. One more is needed to bring it into force.

An International Conference on Maritime Law, co-sponsored by IAEA, elaborated in 1961 and 1962 the Convention on the Liability of Operators of Nuclear Ships, called the Brussels Nuclear Ships Convention. It has not yet entered into force.

Under the leadership of EURATOM and within the framework of ENEA, the so-called Brussels Convention supplementary to the Paris Convention was concluded on 31 January 1963.

The Conventions I have mentioned have several important aspects in common. They provide for strict or absolute and sole liability of the operator of the nuclear plant or ship. This was called the "channelling" of nuclear liability to this operator. The liability is limited in amount and time. Cover by or other financial guarantees for this liability is obligatory. A government guarantee or indemnity scheme is provided for, so that a potential victim of nuclear damage or injury can be assured of compensation. The international Conventions on liability for nuclear damage have served and are serving as models both for national laws and also for international conventions in other fields of so-called ultra-hazardous activities.

Two more legal instruments have also created particular aspects of nuclear law. I am referring first to the London Convention on Safety of Life at Sea of 1960, which contains a new Chapter VIII on nuclear ships. Solutions found there are quite distinguished from other regulations of earlier conventions.

The second is the series of Agreements concluded by the United States with more than a dozen other countries to regulate the conditions for receiving the US Nuclear Ship "Savannah" in foreign ports. Similar agreements are being worked out by the Federal Republic of Germany for their ship "Otto Hahn".

PRESENT STATUS

According to information available to the IAEA, about 56 countries have enacted some kind of nuclear legislation. Many countries have promulgated laws regulating the organization of nuclear activities, frequently centralizing responsibilities in an Atomic Energy Commission.

Even more countries have promulgated radiation protection norms covering part or most of this field. These regulations are as a rule based directly or indirectly on the recommendations of the International Commission on Radiological Protection, which form the basis of directives issued by EURATOM and recommendations issued by ENEA to their Member States and also of the "standards" of the IAEA. These standards were also used to harmonize international rules governing transports of radioactive materials by rail, road, inland waterways, sea and air. A great deal of harmonization was thus achieved, facilitating the use, transport and trade of nuclear materials throughout the world.

The number of countries which enacted "full scale" nuclear legislation, including laws on the licensing and supervision of nuclear reactors and liability for nuclear damage, is more limited but growing steadily. It is hoped that by additional ratifications of the international liability conventions it will be possible also to harmonize the relevant laws in many countries.

Nuclear law is evolving continuously. This is due to the increasing use of radioisotopes and also to the increase in research and power reactors under construction or being planned. On this account, additional countries feel the need to enact nuclear laws. But also the "veterans" in this legal field, veterans of 10 or 20 years, feel the need for adapting their laws to present and future requirements. The United States has initiated steps to permit private ownership of fissionable material and private operation of enrichment facilities. A similar development is noticeable in Japan. The Federal Republic of Germany considers a revision of its Atomic Energy Act of 23 December 1959, and Norway, where several nuclear reactors have been operating for years without any special laws, is now working on the draft of an Atomic Energy Act.

Quite a number of countries will feel the need for nuclear legislation in the not too distant future. If this Agency were to advise them, it would probably propose that they should:

First establish an authority responsible for nuclear activities in the country or, depending on individual constitutional requirements, at least identify the competent authorities.

Health and safety regulations (radiation protection norms) should be enacted. This might, depending on the use of radioisotopes in the country, even be a step to be taken before the organizational one mentioned in the preceding paragraph.

If the country considers construction or purchase of nuclear research or power reactors, it should develop licensing and supervision procedures and also enact liability legislation in concurrence with the international conventions.

The development of an internal safeguards system to guarantee the peaceful use of nuclear energy should not be overlooked.

Looking at the future development of nuclear law from an international viewpoint it seems that problems connected with the transport of radioactive materials deserve being studied. Especially in the field of maritime transport there remain open questions which will be discussed at a Symposium sponsored jointly by ENEA and the Agency in October.

Legal problems of food irradiation are another subject of study in which a number of countries have expressed interest. It will be taken up by this Agency in a panel meeting late this year.

GREAT ACHIEVEMENTS, GREAT TASKS

When we consider the development of nuclear law over 23 years we cannot but recognize the great achievements made. But there is no doubt that similar tasks must be tackled in future, both nationally and internationally.

The International Atomic Energy Agency has contributed to the development of international nuclear law by sponsoring the Vienna International Conference on Civil Liability in 1963 and by co-sponsoring the Brussels Conference on Maritime Law in 1961 and 1962. It has assisted a number of its Member States in their legislation.

It is prepared to continue this assistance and to try to find solutions for future problems which will help to harmonize law in the world.