

NUCLEAR
LAW
Bulletin
number 8

Contents

| | |
|---|----|
| <i>Legislative and Regulatory Activities</i> | 4 |
| <hr/> | |
| <i>Case Law and Administrative Decisions</i> | 27 |
| <hr/> | |
| <i>International Organisations and Agreements</i> | 29 |
| <hr/> | |
| <i>Texts</i> | 36 |
| <hr/> | |
| <i>Studies and Articles</i> | 52 |
| <hr/> | |

European Nuclear Energy Agency

Organisation for Economic Co-operation and Development



LIST OF CORRESPONDENTS TO THE NUCLEAR LAW BULLETIN

AUSTRALIA Mr MacADIE, International Relations, Australian Atomic Energy Commission

AUSTRIA Dr STEINWENDER, Director at the Federal Chancellery

BELGIUM Miss HARDENNE, Attaché to the Cabinet of the Minister of Economic Affairs
Mr STALLAERT, Security Administration, Ministry of Employment and Labour

BRAZIL Mr AYRTON SA PINTO DE PAIVA, Legal Adviser, Comissao Nacional de Energia Nuclear

CANADA Mr MacISAAC, Legal Adviser, Atomic Energy Control Board

DENMARK Mr. ARILDSEN, Head of Section, Ministry of Justice
Mr ØHLENSCHLÄGER, Chief of Division, National Health Service

FINLAND Mr SUONTAUSTA, President of the Atomic Liability Committee

FRANCE Mr. VERGNE, Head of Legal Affairs, Atomic Energy Commission

GERMANY The Institute of Public International Law of Göttingen University, Department of Nuclear Law (Dr. PELZER)

GHANA Mr LEBRECHT HESSE, State Attorney, Ministry of Justice

GREECE External Relations Office, Greek Atomic Energy Commission

INDONESIA Mrs SOEPRAPTO, Head of Legal Division, National Atomic Energy Commission

IRELAND Mr SWEETMAN, Barrister-at-Law, and Department of Transport and Power

ISRAEL Dr MEIR ROSENNE, Director of External Relations, Atomic Energy Commission

ITALY Mr. MARCHETTI, Head of Legislative Office, Ministry of Industry, Commerce and Handicrafts

JAPAN Mr. OSAKA, Deputy Director General, Atomic Energy Bureau, Science and Technology Agency
Mr SHIMOYAMA, Chief of Contract Section, the Japan Atomic Power Company

KOREA Mr SHIYOHL PARK, Chief, Nuclear Power Section, Office of Atomic Energy

MEXICO Mr. ORTIZ-MONASTERIO, Legal Adviser, National Nuclear Energy Commission

NETHERLANDS Miss VAN DE WINKEL, Head of the Desk Atomic Affairs, Ministry of Foreign Affairs

NORWAY Mr. SKARPNES, Head of Division, Department of Legislation, Ministry of Justice

PHILIPPINES Mr CRISTOBAL, Chief, Legal Division, Atomic Energy Commission

PORTUGAL Mr. NUNES DE ALMEIDA, Expert at the Planning and Study Office, Junta de Energia Nuclear

SPAIN Mr. DE LOS SANTOS LASURTEGUI, Legal Adviser, Junta de Energia Nuclear

SWEDEN Mr. NORDENSON, Chief Legal Officer, Ministry of Justice

SWITZERLAND Mr. PFISTER, Deputy, Office of Energy Economics, Federal Department for Transport, Communications and Energy

TURKEY Secretariat of the Turkish Commission for Nuclear Energy

UNITED KINGDOM Mr. COLEMAN, Assistant Treasury Solicitor, Treasury Solicitor's Department, Department of Trade and Industry

UNITED STATES Mr. MURRAY, Attorney, Office of the General Counsel, United States Atomic Energy Commission

ZAMBIA Mr. ZULU, Solicitor General, Ministry of Legal Affairs

IAEA Mr. SUGIHARA, Director of Legal Division, International Atomic Energy Agency

EURATOM Mr GIJSSELS, Legal Adviser, Commission of the European Communities

LEGISLATIVE AND REGULATORY ACTIVITIES

• *Austria*

RADIATION PROTECTION

An order to implement the Radiation Protection Act, which came into force on 1st January 1971, has been drafted by the competent Ministries and is now being reviewed by the authorities directly involved in the field of radiation protection as well as certain advisory bodies. This order, which is reckoned to become effective during 1972, covers the following matters :

- use of radioactive substances;
- handling of equipment emitting ionizing radiation, and
- construction and operation of installations capable of reaching criticality.

• *Belgium*

ORGANISATION AND STRUCTURE

Royal Order of 18th May 1971 / Belgian Official Gazette of 2nd June 1971

This Royal Order, which regulates ministerial powers in respect of atomic energy, suppresses the office of Commissioner for Atomic Energy. Nevertheless, the text does not concern the Atomic Energy Commission proper, which is maintained as a Department of the Ministry for Economic Affairs.

In addition, the Order lays down that questions relating to the peaceful uses of atomic energy and to the work carried out by the Centre d'étude nucléaire or other nuclear research centres fall within the competence of the Minister for Economic Affairs. On the other hand, questions relating to the organisation and programming of research activities in the nuclear field, directly or indirectly financed by the State fall within the competence of the Prime Minister, responsible for co-ordinating scientific policy.

This Order which was published on 2nd June 1971, had come into force on 1st April 1971.

RADIATION PROTECTION

General Military Regulations governing protection against the hazards of ionizing radiations

These Regulations were signed on 11th May 1971 and will soon be published in the Belgian Official Gazette. This text reproduces in the main, the plan of the General Regulations of 28th February 1963 on the protection of workers and the population against the hazards of ionizing radiations which were recently amended by the Royal Decree of 23rd December 1970 [Bulletin No. 77]. Its provisions are also very similar. It was necessary to draft the present Regulations because the General Regulations of 1963 did not apply to the military field.

• *Canada*

REGIME OF NUCLEAR INSTALLATIONS

The Canadian Atomic Energy Control Board, under its powers granted by the Atomic Energy Control Regulations, made the Particle Accelerators Order [No. 1/201/70 - 1/206/70] on 1st June 1970. This Order specifies that particle accelerators (as defined in the Order) are prescribed equipment for the purposes of the Atomic Energy Control Regulations and that no person shall deal with (i.e. use, possess, acquire or operate) particle accelerator except under, and in accordance with an Order of the Board.

• *Finland*

THIRD PARTY LIABILITY

The Bill prepared by the Finnish Committee on Nuclear Liability (see Nuclear Law Bulletin No. 7) has now been approved by the Government and is to be submitted to Parliament shortly. It is recalled that this Bill presupposes that Finland will join the Paris Convention on Third Party Liability in the Field of Nuclear Energy.

The full translation of this Bill is reproduced in the Supplement to the present issue of the Nuclear Law Bulletin.

• *France*

ORGANISATION AND STRUCTURE

Decree No. 71-94 of 2nd February 1971 / Official Gazette of the French Republic, 3rd February 1971/

This Decree issued by the President of the Republic lays down the responsibilities of the Minister Delegate attached to the Prime Minister with responsibility for the protection of nature and the environment. The Decree provides in particular that henceforth the province of the Minister Delegate includes the responsibilities previously incumbent on the Minister for Scientific and Industrial Development as regards dangerous, unhealthy or noxious establishments. Establishments whose activities comprise conversion, processing or use of radioactive substances and which come under the system of classified establishments are therefore placed under the authority of the Minister Delegate. On the other hand, basic nuclear installations remain the responsibility of the Minister for Scientific and Industrial Development.

Decree No. 71-279 of 14th April 1971 / Official Gazette of 16th April 1971/

This Decree issued by the Prime Minister is concerned with setting up an institute under the Centre National de la Recherche Scientifique (CNRS) /National Centre for Scientific Research/, to be known as the Institut national de physique nucléaire et de physique des particules /National Institute for Nuclear and Particle Physics/. This Institute will have the task of developing and co-ordinating research in the field of nuclear physics and particle physics within the organisations coming under the authority of the Minister for National Education. In particular, the Institute is responsible, in conjunction with the competent organisations, for general planning and programming of nuclear and particle physics installations and for research development programmes in its own laboratories and services as well as in laboratories associated with it under special agreements. The Institute also has the task of encouraging organised research and co-operating with French, foreign or international organisations carrying out research in this field.

The Institute has the statute of a State-owned public undertaking, enjoying legal personality and financial independence. Its budget is drawn up by the Board of Management, and submitted to the Ministers for National Education and for Economic and Financial Affairs.

The Institute is administered by a Director and the Board of Management. The Director is appointed for a period of five years, which may be renewed, by an Order of the Minister for National Education on the proposal of the Director General of the CNRS. The Board of Management besides the Director General of the CNRS who acts as chairman, comprises in particular distinguished scientists from the universities and from interested scientific organisations and representatives of the Ministries concerned. The Institute has a Scientific Committee with advisory responsibilities and a Steering Committee to assist the Director. Under Decree No. 71-338 of 28th April 1971 [Official Gazette of 6th May 1971], the nuclear science laboratories coming under the new Institute are governed by the provisions of the Act of 12th November 1968 on the planning of higher education.

TRANSPORT OF RADIOACTIVE MATERIALS

Order of 5th May 1971 [Official Gazette of the French Republic of 22nd May 1971]

This Order by the Minister of Transport amends certain provisions concerning Class IV (b) relating to radioactive materials in the Regulations of 15th April 1945 on the transport of dangerous materials by railway, road and inland waterways. The changes introduced by the new Order deal in particular with the conditions for importing encapsulated radioactive materials, the packaging of radioactive materials, labelling and despatch of packages, and the characteristics of road vehicles transporting radioactive materials.

• *Germany*

RADIATION PROTECTION

Ordinance of 1967 relating to the Authorization of Medicaments Treated with Ionizing Radiation or Containing Radioactive Substances, as amended

The Second Ordinance amending the Ordinance relating to medicaments treated with ionizing radiation or containing radioactive substances, dated 10th May 1971 [BGBL 1971, I, No. 410, p. 449], includes provisions intended to facilitate trading in such medicaments. Consequently, gold-98, cobalt-57, mercury-97 and molybdenum-99 have now been included in the list of substances licensed for delivery to practising physicians.

FEES

Implementing Ordinance Concerning Costs under the Atomic Energy Act

This new Ordinance, dated 24th March 1971 [BGBl I, 1971 No. 26, p. 2667] concerning costs, and implementing the Atomic Energy Act, came into force retroactively as of 1st July 1970. The Ordinance contains new provisions governing the costs prescribed by the Atomic Energy Act.

THIRD PARTY LIABILITY

Implementation of Sections 9 and 10 of the Financial Security Ordinance

The German Official Gazette (Bundesanzeiger) No. 187/1971, contains an amendment to the "General Administrative Regulations" in regard to Sections 9 and 10 of the Financial Security Ordinance of 2nd August 1965 [Bundesanzeiger 1965, No. 145].

The amendment takes into account the new draft of the Financial Security Ordinance of 10th November 1970 (see Nuclear Law Bulletin No. 7).

It lays down that administrative authorities, when fixing the financial security applicable to nuclear fuels and other radioactive substances should take as a basis the "General policy conditions for third party liability for licensed activities concerning the transport of nuclear substances to and from a nuclear installation" known as the AHBStr. A revised version of the AHBStr has been published in 1971 by the Federal Office for the control of insurance and savings [Volume 14 (1965) No. 4, p. 70; volume 20 (1971) No. 1, p. 27].

The AHBStr's amended provisions now cover the insurance of all personnel involved in transport activities. As regards nuclear fuel, this insurance also covers the third party liability for damage occurring in foreign countries.

• *Greece*

REGIME OF NUCLEAR INSTALLATIONS

Decree-Law No. 854 of 15th March 1971

This important Decree-Law concerns the conditions governing the construction and operation of nuclear installations. It prescribes the various authorisations required by the competent authorities, namely, the Ministry for Industry and the Greek Atomic Energy Commission, the latter in an advisory capacity. Nuclear installations within the province of National Defence, or those managed by the Commission or the universities are not affected by the provisions of this Decree which came into force the day it was published in the Official Gazette, on 18th March 1971.

A translation of the Decree is reproduced in the "Texts" chapter of this Bulletin.

• *Indonesia*

RADIATION PROTECTION

A new draft of a Government Regulation concerning the licensing of the use of radioactive materials has been prepared and will be made by the Government as a substitute to Government Regulation No. 9 of 1969 which has already been mentioned in Nuclear Law Bulletin No. 6. The revisions in this draft relate, inter alia, to the provisions concerning storage, carriage and waste management. These subjects together with the Annex consisting of a list of radionuclides will be replaced by a supplementary Manual to the Government Regulation and the authority to make inspections will now be extended to other Government institutes.

Preparations have also been made with regard to a draft Government Regulation concerning "Protection of Workers against Radiation". This draft will soon be submitted to the President of the Republic for approval.

In addition, a manual containing safety provisions for work with radiation has been enacted by decision of the Director General of the National Atomic Energy Agency. This manual should be used as a handbook in the use and handling of radioactive materials and other radiation sources.

Finally, a draft of a Government Regulation concerning the "Carriage of Radioactive Materials" and a supplementary manual are in the course of preparation, but discussions about these subjects have not yet been completed.

• *Ireland*

ORGANISATION AND STRUCTURE

Act No. 12/71 establishing a Nuclear Energy Board

This text was adopted by the Irish Parliament on 29th June 1971 and was promulgated on 5th July 1971. The Nuclear Energy Board is an advisory body with extensive legal powers. The Board's supervisory authority is the Minister for Transport and Power. The latter appoints the seven members of the Board for a period not exceeding five years, and appoints the Chairman from among those members. The Nuclear Energy Board is charged, in particular, with advising the Government on research and industrial development programmes in the nuclear energy field. Its

functions are also to prepare regulations on the use of radioactive substances and on protection against ionizing radiations. The Minister for Transport and Power may by order assign other functions to the Board. A provision in this Act refers to the safety standards recommended by international organisations qualified to establish safety regulations in respect of nuclear installations.

The Act is reproduced in the "Texts" Chapter of this Bulletin.

● *Italy*

REGIME OF NUCLEAR INSTALLATIONS

Decree of the President of the Republic on Regulations governing the recognition of the qualifications required for the technical operation of nuclear installations /Decree No. 7450 of 30th December 1970 - Gazzetta Ufficiale No. 123, 15th May 1971/

Act No. 1860 of 31st December 1962 prescribes (Section 9) that a Decree of the President of the Republic, made on the proposal of the Minister for Industry, Commerce and Handicrafts, in agreement with the Minister for Public Education and the Minister for Labour and Social Security, after consultation with the CNEN, would establish regulatory provisions on the conditions required for acknowledgement of the competence to manage and operate nuclear installations, and would formulate the relevant provisions for delivery of the certificates of qualification required.

The Decree of 30th December 1970 determines the requirements and the procedure for the delivery of certificates of qualification for the technical operation of nuclear installations, and for the licences for directing the operation of such installations.

Certificate of qualification for technical management

The Decree of 30th December 1970 defines "technical operation" as a technical activity connected with the management and operation of installations such as nuclear power plants, research reactors, irradiated fuel reprocessing plants, plants for the processing and manufacture of special fissionable materials and nuclear fuels. This activity consists of determining, organising and co-ordinating the operation of a nuclear installation at technical level.

The National Committee for Nuclear Energy (CNEN) is responsible for establishing a classification of the certificates of qualification required, according to each type of installation mentioned above.

A certificate of qualification is necessary for the technical operation of a nuclear installation. This certificate is valid for a period of three years and can be renewed. The Decree makes a distinction between a first grade and a second grade certificate; in both these categories the certificates are only valid for one specific type of installation. In order to obtain a certificate of qualification, the

applicant must fulfil a certain number of conditions set out in detail in the Decree and which concern:

- a university degree,
- physical and mental fitness,
- professional qualifications,
- age.

As regards the procedure, the application is sent together with the documents required to the labour Inspectorate, through the operator of the nuclear installation where the applicant works or intends to work. The inspectorate then transmits the application to the National Committee for Nuclear Energy (CNEN). The Decree provides for the establishment of two Commissions within the CNEN: a Medical Commission, which must decide on the physical and mental fitness of the applicant, and a Technical Commission which includes experts on nuclear safety as well as on the operation of the type of installation for which the certificate of qualification is required. The CNEN transmits to the labour Inspectorate the results of the work of the Commissions and specifies the decisions they have made. The certificates are delivered by the national labour Inspectorate.

Licence of qualification for the operation of an installation

Within the meaning of the Decree of 30th December 1970, the operation of a nuclear installation consists of directing and supervising the activities of the installation.

The Decree provides for the granting of a licence of qualification for the operation of a nuclear installation. The licence is valid for a period of three years, and can be renewed.

The licences are classified into two categories; the first grade licences which allow the holders to supervise all the activities connected with the operation of the installation (supervisor's licence) and the second grade licences, the holders of which may directly operate the appliances and equipment in the installation (technical operator's licence). Both types of licence are only valid for the installation for which they have been granted.

The conditions necessary for obtaining a licence concern university degrees, physical and mental health, age, etc. Particular importance is attached to the aptitude and training of the applicant, he must, notably, provide proof that he has trained for a period of at least sixty days in an appropriate nuclear installation, and must undergo examinations in that installation and at the CNEN; these examinations concern operation of the installation as well as certain practical problems relating to safety (measures to be taken in case of an incident, knowledge of radiation protection principles and use of health physics instruments).

Applications for a permit are sent to the labour Inspectorate through the operator of the installation where the applicant has carried out his practical training.

The procedure for delivery of licences is similar to that for certificates of technical qualification as described above, and concerns the same authorities.

RADIATION PROTECTION

Act No. 965 of 24th November 1970 relating to technicians in medical radiology

Act No. 1103 of 4th August 1965 [Official Gazette 1965, No. 247] and Decree No. 680 of the President of the Republic of 6th March 1968 [Official Gazette 1968, No. 141] have established the Regulations applicable to technicians in medical radiology.

Following publication of these texts, certain categories of technicians in medical radiology were able to pursue their activities until they had received notification of the decision of the special Commission set up by the 1968 Decree informing them that the licence permitting them to practise had been denied them because they did not fulfil the conditions prescribed by the 1965 Act.

Act No. 965 of 24th November 1970 sets the conditions whereby such technicians may apply to the Public Health Medical Officer of the province in order to undergo the examinations established for obtaining the diploma of technician in medical radiology.

REGIME OF RADIOACTIVE MATERIALS

Ministerial Decree of 15th December 1970 exempting from the notifications and authorizations prescribed by Act No. 1860 of 31st December 1962, in implementation of Act No. 1008 of 19th December 1969

Act No. 1860 of 31st December 1962 on the peaceful uses of atomic energy has established a general regime of notification and authorization for the possession, trade in, and transport of radioactive substances. In accordance with Act No. 1008 of 19th December 1969, the Minister for Industry, Commerce and Handicrafts may by Decree made jointly with the Minister for Public Health, and after consultation with the CNEN, establish exemptions from the notifications and authorizations mentioned above, when such possession, trade and transport only concern small quantities of fissionable materials, raw materials or other radioactive substances. This is the purpose of the Ministerial Decree of 15th December 1970, which fixes the conditions in which the exemptions are applicable. A translation of the full text of the Decree is reproduced in the chapter "Texts" of this issue of the Bulletin.

● *Netherlands*

GENERAL REGIME

Secrecy Decree of 22nd January 1971 (Bulletin of Acts, Orders and Decrees 1971, No. 420)

This Decree provides for the implementation of Section 68 of the Nuclear Energy Act of 1963 stating that rules may be made concerning the

secrecy of a number of nuclear matters.

According to the provisions of the Decree, an obligation to observe secrecy can be imposed upon persons who are engaged in the nuclear activities listed in the Decree, if the interest of the State so requires. Depending on the cases in which secrecy is required, the competent authority to impose such an obligation can be the Minister for Economic Affairs, the Minister of Defence, the Minister for Foreign Affairs, the Minister for Home Affairs, the Minister of Transport, Water Control and Public Works, the Minister of Education and Science, the Minister of Agriculture and Fisheries or the Minister for Social Affairs and Public Health (now the Minister of Health and the Environment). In order to ensure secrecy several precautions have to be taken including the following :

- grounds, buildings and areas in which the said nuclear activities are carried out have to be protected adequately;
- the activities mentioned in the Decree can only be entrusted to persons, who are regarded as duly fulfilling the obligations to maintain secrecy,
- knowledge of data relating to the nuclear activities can be accessible only to persons who are directly involved in the above activities,
- records must be kept, in so far as is desired by one of the above Ministers, regarding the said nuclear activities.

In addition to these measures, three other requirements have to be observed in order to ensure secrecy :

- the above Ministers have to be supplied with the requisite information concerning the said nuclear activities,
- the above Ministers have to be informed of any serious violation of the observance of the measures taken to ensure secrecy,
- an official of the enterprise or institute concerned must be appointed to bear special responsibility for devising measures to ensure secrecy.

Directive of 24th September 1971 under the Nuclear Energy Act (Secrecy Decree)/Government Gazette of 28th September 1971, No. 107/

This Directive, issued by the Minister for Economic Affairs, the Minister for Foreign Affairs, the Minister for Social Affairs, the Minister for Health and the Environment and the Minister without Portfolio in charge of matters concerning science policy and university education, is made by virtue of Section 1 of the Secrecy Decree referred to above (Bulletin of Acts, Orders and Decrees 1971, No. 420). It contains a more detailed description of the nuclear activities to which the Secrecy Decree applies.

REGIME OF RADIOACTIVE MATERIALS

Decree of 17th June 1971 /Bulletin of Acts, Orders and Decrees dated 13th July 1971/

This Decree gives an extension to the provisions of Section 15

of the Radioactive Materials Decree of 10th September 1969 (Bulletin of Acts, Orders and Decrees 1969, No. 404) which was made under the Nuclear Energy Act of 1963. In addition to the exceptions, already mentioned in the Radioactive Materials Decree, the amending Decree specifies a number of operations with radioactive materials which are exempted from certain parts of the general procedure for obtaining a licence.

Decree of 17th June 1971 (Bulletin of Acts, Orders and Decrees dated 13th July 1971)

This other Decree amends Section 11 of the Devices Decree of 10th September 1969 (Bulletin of Acts, Orders and Decrees 1969, No. 406) which was made under the Nuclear Energy Act of 1963. The amendment concerns an extension of the number of devices which cannot be used without a licence.

• *Norway*

GENERAL REGIME

General Bill on Atomic Energy

Progress of the work on the preparation of a general law on atomic energy in Norway has already been reported in issues 1 and 3 of the Nuclear Law Bulletin. Since then, a Bill was submitted to Parliament in April 1971, and is now being considered by a Parliamentary Committee (Forestry, Waterway and Industrial Committee). However, no date can yet be given as regards the passing of this Bill by Parliament. After it has been adopted, the Paris Convention on Third Party Liability in the Field of Nuclear Energy, and the Brussels Supplementary Convention could be ratified by Norway within the very near future.

• *Philippines*

REGIME OF RADIOACTIVE MATERIALS

The Philippine Atomic Energy Commission completed the first draft, dated 16th August 1971, of its Rules and Regulations for the treatment and disposal of radioactive wastes in the Philippines. These draft Regulations were prepared by an Ad Hoc Committee composed of experts from the staff of the Commission. The Committee will review the Regulations, and to give them force and effect, the final text will be published in the Philippine Official Gazette.

The Commission does not have regulations for the control and safe disposal of radioactive waste. When he is granted his licence the licensee or applicant for a licence is given instructions on the method for the proper disposal of his waste material. For reasons of convenience and for the purpose of providing licensed users of radioactive material with uniform standards for treating and safely disposing of radioactive wastes, the Commission decided to make rules in this field of activity. Hence the Commission created the abovementioned Committee for the purpose of preparing regulations for the safe disposal of radioactive waste materials.

The rules and regulations already referred to are made up of 16 Sections. Section 1 cites R.A.5207 (Act on the licensing and regulation of atomic energy facilities and materials) as the source of the Commission's rule-making authority and states the purpose of the Regulations. The scope of application of the Regulations is limited to all persons in the Philippines who treat and dispose of radioactive wastes as well as to those who receive, possess, use or transfer radioactive materials under a licence issued by the Commission (Section 2).

Disposal of licensed materials as waste is prohibited except where they are transferred to a person authorized by the Commission to receive radioactive materials, or where such wastes are disposed of by the procedures for disposal laid down in the Rules and Regulations.

If the waste disposal procedure differs from those authorized by the Rules and Regulations, the licensee or applicant must submit his proposed procedure for disposal to the Commission for approval. His application must include such information as required by Section 8 of the Regulations. There are three modes of waste disposal, namely disposal by release to the sanitary sewerage system, disposal by burial in soil, and disposal by incineration. Details concerning each of these modes and the disposal requirements are provided in Sections 6, 7 and 8 of the Regulations respectively.

Concentrations of radioactive material that are to be released to unrestricted areas are subject to the limits, requirements and restrictions imposed by Section 9 of the Regulations.

It is mandatory upon the licensee to make or have made a survey of the release and disposal of radioactive materials into the environment as may be necessary in order to comply with the requirements of the Regulations. This survey is an evaluation of radiation hazard incidental to the production, use, release, disposal or presence of radioactive material or other sources of radiation under a specific set of conditions (Section 10). Records of surveys, radiation monitoring and disposal activities, including theft or loss of licensed material are required of each licensee.

In the event of any incident involving the over-exposure to radioactive materials of any person under the circumstances specified in Section 13 of the Regulations, the licensee is required to notify the Commission immediately on the nature of the incident (Sections 11 to 13).

Upon its own initiative, or on application by the licensee, the Commission may grant exceptions from the requirements of the Regulations as it may deem necessary insofar as this will not result in undue risk to life or property (Section 14).

The Commission may by regulations or order lay down requirements in addition to those contained in the Regulations which it may consider appropriate and necessary to protect health and minimize danger to life and property (Section 15). Violations to the Regulations are penalized by fines or imprisonment or both as provided by Section 65 of R.A. 5207.

• *Spain*

REGIME OF NUCLEAR INSTALLATIONS

An important set of Regulations relating to nuclear and radioactive installations is about to be published by the Spanish authorities. These Regulations will contain the measures for implementing Chapter V, concerning the system of authorization of nuclear and radioactive installations, of the basic nuclear energy Act of 25th April 1964. Title I of the Regulations, which contains provisions of a general nature, stipulates that the Minister for Industry, with the assistance of the Junta de Energia Nuclear, is responsible for implementing the Regulations.

Title II is concerned with nuclear installations. The term "nuclear installations" comprises nuclear power stations intended for generating energy by means of a nuclear reactor, nuclear reactors, plants using or processing nuclear fuels and plants for processing nuclear substances and storage installations for nuclear substances. The construction and operation of nuclear installations come under a system of authorization by the Minister for Industry. This system consists of three separate authorizations, the prior authorization, the construction permit and the start-up licence. The "prior" authorization confers official recognition on the purpose of the installation and on the chosen site, it is granted after submission of detailed information on the planned installation for examination by the Ministry for Industry, the Ministry for Public Works and the Junta. The authorization procedure includes consultation of members of the public concerned. If a favourable decision is given by the competent authorities, the prior authorization granted to the operator fixes a period of time within which he must apply for the construction permit. The request for this second authorization is accompanied by a new submission of documents concerning the installation and dealing with technical, economic and safety aspects. The construction permit is granted, on the advice of the Junta, by the Directorate-General for Energy and Fuels and gives all the basic specifications of the installation. A Co-ordinating Committee is appointed by the Directorate-General to follow the progress of the construction work and to see that the terms of the authorization are adhered to. Whilst the installation is being constructed it must, before receiving its charge of fuel, if a reactor is involved, or before nuclear substances are introduced, be given a pre-nuclear test as to the proper operation of its facilities; this test is carried out by the Ministry for Industry and by the Junta. The start-up licence itself consists of a provisional operating licence and a final operating licence. The first licence is obtained after examination of a number of documents including in particular a safety study, operating rules, a programme of nuclear tests and a scheme of emergency measures in case of incident. The operator must also provide proof that he has adequate financial security to cover any nuclear damage which might be caused by the installation.

The final operating licence is granted when the nuclear and other tests have all been successfully completed.

Title III of the Regulations covers radioactive installations. The term "radioactive installations" means installations containing a source of ionizing radiations, equipment emitting ionizing radiations, and premises where radioactive materials are produced, processed and stored. However, installations containing materials of which the activity or concentration are less than the values specified in an Annex to the present Regulations or materials subject to adequate protection, do not come under this classification, nor do appliances generating X-rays for medical purposes. Radioactive installations are divided into three categories, in decreasing order of the hazard involved in their operation. The installations in the first category, like nuclear installations, are subject to a triple authorization system - prior authorisation and authorizations for construction and start-up respectively. Here too, requests for authorization are examined by the competent services of the Ministry for Industry, assisted by those of the Junta. In detail, the authorization procedure is fairly similar to that relating to nuclear installations. Installations in the second category require only a construction permit and a start-up licence. Only the latter authorization is required for installations in the third category. Adequate financial security is also required from the operators of radioactive installations.

Title IV of the Regulations deals with the inspection of nuclear and radioactive installations. Representatives of the Ministry for Industry and of the Junta with appropriate technical qualifications are responsible for inspecting nuclear and radioactive installations and are given wide powers for carrying out their task. The operators of the installations concerned are obliged to allow the inspectors free access, and to make available to them all documents and information which may be useful in their task. The inspectors' conclusions are sent to the competent authorities and where necessary contain proposals for measures to correct any anomaly found during the inspection.

The qualifications of staff handling control equipment in a nuclear or radioactive installation must be approved by the granting of a licence. Title V of the Regulations provides for two kinds of licence, one for operators of control equipment, the other for the person supervising them and who is in fact responsible for the operation of the installation. These licences are personal and are heretofore non-transferable. They are granted by the Junta after verification of the professional qualifications and physical aptitude of applicants. These licences are valid for two years and are renewable. Holders must conform with the requirements of the present Regulations as well as with the terms of the installation's operating licence. This responsibility is naturally incumbent particularly on the manager of the installation.

Titles VI and VII deal respectively with the installation's log, records and operating reports in the first place, and the manufacture of radioactive equipment in the second. Entries in the operating log, which must be kept up-to-date by the holder of the installation's authorization, must include all details relating to the operation of the installation. The holder of the authorization must also forward periodic reports to the Junta regarding the operation of the installation. The manufacture of radioactive appliances and equipment requires prior authorization from the Minister for Industry, upon the advice of the Junta.

RADIATION PROTECTION

Order of 9th March 1971 / Official Gazette No. 64 of 16th March 1971

An important Order of the Minister of Labour, being General Regulations on health and safety at work, was recently published by the Spanish Government. It sets out the compulsory measures for protecting workers coming under the national social security system with a view to preventing accidents at work and occupational diseases. These measures are considered to be the minimum standards of protection to which workers are entitled. The various types of job covered by the Regulations include work involving special risks and in particular that where there is exposure to ionizing radiations (Title II, Chapter XII).

This chapter comprises two kinds of provision, the first establishing general rules of protection, the second being more specific. The general provisions cover in particular the layout of premises, the conditions for using and storing dangerous substances, instructions to be observed where there is danger of accident, and staff training. Under the special regulations relating to protection against ionizing radiations, male workers below the age of 18, women under 21 and married women of reproductive age, may not be assigned to work exposing them to radiation doses exceeding 1.5 rem per year. Workers who are so exposed must be informed of the hazards of radiation and must understand the relevant safety precautions. They must also undergo a prior medical examination. Special protection facilities and clothing must be used in dangerous work or in the event of radioactive contamination. If any kind of accident occurs, work must be stopped immediately. It is forbidden to introduce into the working areas any personal objects which might become contaminated. If a medical examination reveals that a worker has absorbed the maximum permissible dose of radiation, he must at once be assigned to work involving no risk of exposure and may not return to his previous activities unless authorized by the establishment's medical service. Workers must inform this service without delay of any significant symptom they may suffer from and of any instance of permissible doses of radiation being exceeded.

Finally, the General Order specifies the penalties for infringements of its provisions. The General Order on health and safety at work came into force on 1st June 1971. In its application, this general enactment is not intended to replace the previous specific texts concerning the protection of workers against ionizing radiations, such as the Orders of 1959 and 1962, but simply to supplement them.

• *Sweden*

ORGANISATION AND STRUCTURE

The Decree No. 490, of 15th September 1961, containing provisions on the organisation of, and responsibilities allocated to the Atomic Energy Board has been replaced by Decree No. 490 of 27th May 1971. According to this Decree the Atomic Energy Board has the following responsibilities :

- to follow developments in the field of nuclear energy, especially with respect to safety problems;
- to examine and approve applications for licences under the Atomic Energy Act insofar as the Government has delegated this function to it;
- to carry out the inspections as required by the Atomic Energy Act;
- to perform certain functions under the Royal Decree No. 46 of 8th March 1968, issued pursuant to the Nuclear Liability Act; and
- to exercise such control functions with respect to raw materials and special fissionable materials as a result of Sweden's international commitments.

Whereas the 1961 Decree endowed the Atomic Energy Board with the function of an advisory body and with drawing up the guiding principles for the activities in the field of nuclear energy with a view to the need for fuel and power supply in Sweden, according to the 1971 Decree it is no longer the Atomic Energy Board but "Aktiebolaget Atomenergi (main body dealing with applied nuclear research and development in Sweden) which is charged with this responsibility.

FEES

The Decree of 29th December 1970 provides for a new tariff applicable in respect of the performance of certain services by the Atomic Energy Board. The fees fixed by this Decree relate to administrative functions to be carried out in connection with the application for licences under the Atomic Energy Act and to inspections carried out under that Act. They are based on the principle that fees ought to cover the actual costs of handling applications and for the carrying out of inspections by the Board.

• *Thailand*

NUCLEAR LEGISLATION

1. The basic text dealing with nuclear energy in Thailand is the Atomic Energy for Peace Act of 14th April 1961 (B.E. 2504). This Act has been in turn amended by the Atomic Energy for Peace Act (No. 2) of 22nd October 1965 (B.E. 2508). The Act of 1961 established an Atomic Energy Commission for Peace and a licensing system applicable to activities in the nuclear field including the production, possession and utilization of atomic energy and nuclear materials. The licensing system also applies to the import and export of nuclear materials.

2. According to the provisions of the A.E.P. Act, various matters are dealt with in greater detail by Ministerial Regulations

- Ministerial Regulation No. 1 of 10th June 1961 determines the minimal concentration of Uranium and/or thorium, above which minerals or ores are to be considered as source material,
- Ministerial Regulation No. 2 of 10th June 1961 determines the conditions to be fulfilled for applications for licences required for the different nuclear activities mentioned in the Act and prescribes the various application forms. In addition safety measures are prescribed to prevent persons inside or outside radiation areas from receiving a radiation dose exceeding the maximum permissible dose,
- Ministerial Regulation No. 3 of 10th July 1961, determines the format required for the identity card of the official empowered to inspect any installation involved in nuclear activities, or dealing with nuclear materials;
- Ministerial Regulation No. 4 of 4th October 1968, completes Ministerial Regulation No. 2 by adding the application form for the licence required for the production and utilization of X-ray energy from an X-ray apparatus.

3. The A.E.P. Act (as amended) empowers the Atomic Energy Commission for Peace to deal with all matters in connection with the peaceful uses of atomic energy. The Commission consists of the Prime Minister as Chairman, representatives of various Ministries and other official organisations ex officio, and not more than eight other qualified persons appointed by the Cabinet. The appointed members serve for a four-year term.

4. In order to carry out its functions the Commission has among others the following general powers and duties:

- to establish policy and to initiate and encourage the production and utilization of atomic energy and nuclear materials as well as research into the use of atomic energy,
- to make recommendations to the Cabinet concerning safety measures for atomic energy;
- to lay down rules for the control and carrying out of nuclear activities so as to be in accordance with conditions in the licences issued under the A.E.P. Act;
- to determine standards applicable to nuclear energy,
- to promote knowledge relating to atomic energy.

5. In addition, the Commission is competent to issue licences for nuclear activities. For the purpose of preventing danger to persons or property or for the protection of health a written Order can be made requiring the licensee :

- to make modifications to buildings, machinery, equipment and instruments;
- to suspend the utilization or production until the Order has been complied with.

If the licensee fails to comply with the Order the Commission is empowered to revoke the licence. If a licence is revoked the licensee must dispose of the nuclear materials possessed or utilized by him.

6. Finally, the A.E.P. Act contains penal sanctions for contravening any of the provisions with regard to the prescribed licence. Persons who have not obtained the requisite licence in accordance with the Act are liable to penalties consisting of imprisonment or fines, or both.

• *United Kingdom*

ORGANISATION AND STRUCTURE

The Atomic Energy Authority Act 1971 (Appointed Day) Order 1971 S.I. 1971/4787 was made on 20th March 1971 and it fixes the date of 1st April 1971 as the appointed day for the coming into effect of Sections 1 and 2 of the Atomic Energy Act 1971. On that date therefore the transfers of parts of the undertaking of the UKAEA to British Nuclear Fuels Ltd. and the Radiochemical Centre Ltd. took place.

The Nuclear Installations (Application of Security Provisions) Order 1971 S.I. 1971/5697 was made on 1st April 1971. This Order applies to British Nuclear Fuels Ltd. the security provisions set out in the new Schedule 1 of the Nuclear Installations Act 1965 (as amended by the Atomic Energy Authority Act 1971) in consequence of the transfer from the UKAEA of Capenhurst and Windscale to B.N.F.L.

• *Vietnam*

NUCLEAR LEGISLATION

1. Two regulatory texts have recently been adopted by the authorities of the Republic of Vietnam; they concern safety standards for installations using ionizing radiation sources (Order No. 1211 of 14th June 1971), and compensation for damage caused by ionizing radiation sources to workers employing them (Decree No. 043 of 29th April 1971).

2. The first of these texts amends Order No. 62 VHXH/ND of 1st March 1967, which sets the safety standards applicable to installations using ionizing radiations, and attaches particular importance to the physical and medical control of occupationally exposed persons.

3. The provisions of the Decree of 29th April 1971 relating to compensation for damage caused by radiation only concern civil servants, and grant them security as they do not benefit from an insurance system or from social security. This Decree sets the amount for compensation

for permanent staff and establishes the system for sick leave for officials injured by radiation as well as the conditions for dismissal or for retirement due to occupational incidents. The Decree also sets the compensation which may be granted to the heirs of an official who has died following an occupational incident.

All the expenditure for compensation provided by the Decree is borne by the budget of the service employing the victim, in accordance with the conditions laid down by Decree No. 125 SL/HDCV of 21st August 1967.

4. These two Regulations supplement nuclear legislation in Vietnam, which includes the following texts :

- Decree of 11th October 1958, setting up the Atomic Energy Office (No. 507/TTP);
- Decree of 27th January 1959 No. 26 TTP regulating the utilization of nuclear substances;
- Decree-Law No. 006-66 dated 3rd March 1966 relating to protection against ionizing radiation and setting up the National Commission for Protection against Ionizing Radiation,
- Order No. 10, VHXH/NTLC of 7th January 1967 supplementing the Decree of 27th January 1959;
- Order No. 62, VHXH/ND of 1st March 1967 amended by the Decree of 14th June 1971.

5. Organisation and Structure

The main responsibility of the Atomic Energy Office is to deal with scientific and technical questions. The Chairman of the Office and its Steering Committee, made up of seven members, represent the different Ministries concerned (Education, Defense, Health, Agriculture, Budget, Plan, Atomic Energy). Its main tasks are to direct the training of technicians in the nuclear field, to ensure close co-ordination between Vietnam and International Organisations in order to orient technical and scientific research towards the peaceful utilizations of such energy.

The National Commission for Protection Against Ionizing Radiation set up by Decree No. 006-66 dated 3rd March 1966, is the controlling body with respect to radiation protection in Vietnam and is placed under the authority of the Minister of Social and Cultural Affairs.

This Commission is made up of the Director General of the Atomic Energy Office, the Director General of Health and Hospitals, an Inspector General of Labour, a Representative of the Medical Association, as well as of several members competent in the field of applications of ionizing radiations and nuclear research.

The main task of the Commission is to establish safety standards for ensuring protection against ionizing radiations. To this end the Commission submits proposals to the Government, for regulatory measures to be taken in respect of health protection, formulates recommendations on the different prevention techniques and controls their application, finally, together with the Office of Atomic Energy, it gives its opinion concerning the requests for authorization to prospect for radioactive deposits.

6. Utilization of nuclear substances

This aspect of nuclear legislation has been regulated by Decree No. 26 TTP of 27th January 1959, subsequently supplemented by Order No. 10 VHXH/NTLC of 7th January 1967.

Under this Decree, the Republic of Vietnam has the monopoly for exploitation of radioactive deposits, and no private person may exploit a concession. However, if such person wishes to prospect for radioactive deposits, prior authorization must be obtained from the National Commission for Protection Against Ionizing Radiation. The Government reserves the right to exploit a radioactive deposit discovered by a private person after having compensated the person for such expropriation.

Acquisition, production, sale, importation and exportation of all radioactive substances (including uranium and thorium) as well as of artificial radioisotopes, must be authorized jointly by the above Commission and the Committee of Experts designated by the Director General of the Office of Atomic Energy. The Order of 7th January 1967 specifies that requests for the utilization of all sources of ionizing radiation, in any form whatever, are subject to the authorization of the above Commission.

Pursuant to the provisions of Order No. 62 VHXH/ND of 1st March 1967, transport of radioactive sources must be carried out in accordance with the International Atomic Energy Agency Regulations. These Regulations have been published by the National Commission for Protection Against Ionizing Radiation.

7. Protection against ionizing radiations

The Decree of 3rd March 1966 setting up the National Commission for Protection against Ionizing Radiation and Order No. 62 VHXH/ND of 1st March 1967 set the safety standards for the operation of undertakings using ionizing radiation sources. The basic ionizing radiation protection standards are in conformity with the International Atomic Energy Agency Recommendations. These Recommendations which relate to the safe use of radioactive products and nuclear reactors must be rigorously observed, once they have been published by the National Commission for Protection Against Ionizing Radiation.

As regards protection in installations, the latter must be designed in such a way as to sufficiently ensure the safety of the staff and the population. Consequently, any modification made to such installations is subject to prior authorization from the National Commission for Protection Against Ionizing Radiation. In addition, premises in which radiation sources have been used may not be used for other activities before they have been monitored radiologically by this Commission.

As regards the protection of staff, requirements are prescribed for their age (not below 18 years of age) and health, and they must also undergo a medical examination before they are recruited. This medical examination must be subsequently undergone every year. Pregnant women cannot take part in activities involving radiation.

• *Yugoslavia*

RADIATION PROTECTION

1. Legal provisions for radiation protection in Yugoslavia are given by a Basic Law concerning protection against ionizing radiation, promulgated by Decree of 15th March 1965 (Official Gazette of the Federation of Socialist Republics of Yugoslavia, 24th March 1965).

2. In order to achieve protection against the harmful effects of ionizing radiation the first mentioned Basic Law contains a number of rules concerning radiation sources, persons exposed to radiation and materials and objects which may be contaminated by radioactive substances.

In this connection several activities are prescribed, some of which fall within the competency of the Federation and others within the competency of the individual Republics. The most important responsibilities of the Federation are .

- drawing up a programme for the testing of contamination of the air, the soil, rivers, lakes and the sea;
- supervising and co-ordinating the work of the State agencies and professional and other organisations dealing with the protection against ionizing radiation;
- guiding scientific research in the field of protection against ionizing radiation.

Activities within the responsibility of the individual Republics are :

- designating and authorizing institutions for the carrying out of duties concerned with protection and organising decontamination services;
- drawing up a programme for the testing of the extent of contamination in drinking water and human and animal food, and carrying out decontamination.

3. In addition the Basic Law provides for subjects to be described in greater detail in Regulations by the Federal Secretary for Health and Social Affairs. Until now five such Regulations have been issued

- Regulation No. 53-166/65-1 of 30th June 1965 with regard to the medical examination for and health conditions applicable to persons working with sources of ionizing radiation (Official Gazette, 14th July 1965);
- Regulation No. 53-166/65-2 of 30th June 1965 with regard to the maximum permissible doses of ionizing radiations to which persons working with sources of such radiation may be exposed (Official Gazette, 14th July 1965);

- Regulation No. 53-166/65-3 of 30th June 1965 concerning the technical training of persons working with sources of ionizing radiation and in the field of radiation protection (Official Gazette, 14th July 1965);
- Regulation No. 53-166/65-4 of 30th June 1965 with regard to the distribution and use of radioactive substances of activity greater than the maximum permissible, and the protection measures against the radiation from such sources (Official Gazette, 14th July 1965);
- Regulation No. 53-166/65-5 of 30th July 1965 with regard to the use of X-ray apparatus and protection measures against X-rays (Official Gazette, 4th August 1965),

4. According to the prescriptions of the Basic Law the location of nuclear establishments is subject to a special approval, granted by the Agency responsible for sanitary inspection in each Republic of the Federation, in agreement with the Federal Nuclear Energy Commission and after consultation with the institution responsible for protection against ionizing radiation. Before starting the construction of these establishments, however, an approval of the same authorities is required for the radiation protection measures.

5. Acquisition, distribution and use of radioactive substances by professionals or by State agencies is only possible after authorization by the agency responsible for sanitary inspection in each Republic. The main conditions to be observed are as follows .

- the establishments in which sources of ionizing radiations are produced, must satisfy health and technical requirements and must be provided with the appropriate devices for the protection of staff;
- all the persons working with sources of ionizing radiation must have received the technical training for the activities which they are carrying out,
- measures must be taken to prevent the contamination of the environment by radioactive waste.

6. The storage and transport of radioactive substances, whose activity exceeds a prescribed maximum, are also subject to the approval of the agency responsible for sanitary inspection in each Republic. The place from which the radioactive substances is to be transported determines which agency is competent. If the transport of nuclear substances is to be carried out from Yugoslavia to another country, or vice versa, the approval of the Federal agency responsible for sanitary inspection is required.

7. Nuclear installations for purposes of nuclear research or nuclear power reactors must have their own services for radiation protection and must draw up a plan of the protective measures to be taken in case of a nuclear accident. This plan needs the agreement of the agency responsible for sanitary inspection in each Republic and the corresponding agency for civil defence.

8. The Basic Law also lays down provisions for the radiation protection of persons professionally exposed to radiation, as well as persons who are trained for work with sources of ionizing radiation. All these persons are subject to health inspection. Regulation No. 53-166/65-1 of 30th June 1965 determines the number of medical examinations to be carried out each year on persons working with sources of ionizing radiation and indicates which persons are entitled to work with radioactive sources. According to the prescriptions of the Basic Law maximum permissible doses of radiation to which persons can be exposed are given in the Regulation No. 53-166/65-2 of 30th June 1965.

9. The agencies responsible for sanitary inspection in each Republic are responsible for the enforcement of the measures with respect to the protection against ionizing radiation.

In order to carry this out the agencies are entitled inter alia :

- to order the remedying of faults in connection with safety where work is undertaken with sources of ionizing radiation and to determine the time within which this must be effected,
- to suspend the construction of establishments, premises or installations in respect of which the prescribed approval as to their location or construction has not been obtained.

10. In addition, a Basic Law concerning the sanitary control of foodstuffs of 28th March 1956, modified and completed by a law which was promulgated by Decree of 15th March 1965 (Official Gazette, 31st March 1965) lays down one provision with regard to foodstuffs contaminated by radioactive materials or exposed to radiation.

CASE LAW AND ADMINISTRATIVE DECISIONS

CASE LAW

• *United States*

LICENSING OF NUCLEAR INSTALLATIONS AND PROTECTION OF THE ENVIRONMENT

A legal event of great significance for the nuclear energy programme in the United States occurred on 23rd July 1971, when the United States Court of Appeals for the District of Columbia gave its decision in the consolidated cases of Calvert Cliffs Coordinating Committee Inc et al. v U.S. (case Nos. 24,839 and 24,871).

In summary the Court held that:

1. the National Environmental Policy Act of 1970 (NEPA) did not authorise the issuance of a regulation by the Atomic Energy Commission to the effect that non-radiological environmental issues are to be excluded from reactor licensing hearings of which notice was given before 4th March 1971.
2. NEPA requires the AEC, in all reactor licensing proceedings held after 1st January 1970, to take into account an independent AEC assessment of water quality and other environmental factors. NEPA does not permit AEC to rely on water quality certification by the Federal Water Pollution Control Agency or on established Federal and State standards in other environmental areas. The AEC is not precluded from requiring applicants to use stricter water quality and other environmental standards and must make an overall balance of project benefits and environmental costs.
3. NEPA requires Atomic safety and licensing boards in both uncontested and contested cases to make an independent examination of NEPA matters and independently to consider the final balance between the various conflicting factors made by AEC staff.

4. NEPA requires that these expanded NEPA procedures shall be applied to reactor facilities which have been previously licensed without compliance with such procedures.
5. NEPA requires the AEC, with respect to reactor construction permits issued before 1st January 1970 (this includes the Calvert Cliffs nuclear facility), to consider promptly any significant non-radiological environmental impact and to direct such alterations to the facility as may be indicated. The consideration of these matters may not be deferred until the operating licence review stage.
6. NEPA requires the AEC to consider seriously a temporary halt in construction of a facility pending the completion by the AEC of its NEPA review and the "backfitting", if necessary, of technological improvements.

After carefully considering the implications of the decision, the Commission announced on 26th August 1971 that it would not appeal against the decision. At the same time the Chairman said that revised regulations were being drafted to implement the Court's decision. The effect of the revised regulations would be to make the AEC directly responsible for evaluating the total environmental impact, including thermal effects, of nuclear power plants, and for assessing their impact in terms of the available alternatives and the needs for electric power. He also said that the Commission intended to be in a position to be responsive to the concerns of conservation and environmental groups as well as other members of the public. At the same time the Commission was examining the steps that could be taken to reconcile a proper regard for the environment with this necessity for meeting the Nation's growing requirements for electric power on a timely basis.

INTERNATIONAL ORGANISATIONS AND AGREEMENTS

INTERNATIONAL ORGANISATIONS

● *International Atomic Energy Agency*

STANDING COMMITTEE ON CIVIL LIABILITY FOR NUCLEAR DAMAGE

The Standing Committee on Civil Liability for Nuclear Damage held its 3rd series of meetings from 1st to 4th June 1971 in Vienna under the Chairmanship of Mr. Maurice Lagorce (France). The principal question before the Committee was that of the exclusion of small quantities of nuclear material from the application of the Vienna Convention on Civil Liability for Nuclear Damage. The Committee agreed to recommend to the Director General a draft resolution which would exclude small quantities of nuclear material not only when they were consigned by an operator to a recipient for use for the period they were outside a nuclear installation, but also when they were in installations which are not authorized by the Installation State to contain such material in quantities exceeding certain limits. Further action with respect to the draft resolution has been postponed for the present time in view of the additional studies now being carried out once again in the framework of ENEA as it is still hoped that harmony can be maintained in the decisions taken ultimately under Article I.2 of the Vienna Convention and Article 1(b) of the Paris Convention.

The Committee also discussed the divergencies between international Conventions on Civil Liability for Nuclear Damage and maritime Conventions on Third Party Liability and the majority of delegations expressed their support for the draft Convention adopted by the Legal Committee of IMCO, which is to be considered by a diplomatic conference (See ENEA).

4TH GENEVA CONFERENCE ON THE PEACEFUL USES OF ATOMIC ENERGY

The 4th Geneva Conference on the Peaceful Uses of Atomic Energy took place from 6th to 16th September 1971 and was attended by some hundred countries and delegations. Sessions of the Conference were devoted to a wide range of subjects, principally of a technical or economic nature, but included several subjects of relevance to nuclear law as well, in particular: "Legislative, insurance and regulatory aspects", safeguards, "Environmental effects and public acceptance"; radiation protection, "Organisation of national atomic energy commissions and their relationship with other bodies and institutions"; and a "Panel on Ecological Aspects and Public Understanding of Nuclear Power". At the session devoted to legislative, insurance and regulatory problems, reports were presented on the third party liability and insurance of nuclear operators, nuclear legislation in France and in the United States, the legal problems raised by international protection against nuclear incidents, and the legal difficulties encountered by the operation of nuclear ships.

FIFTEENTH REGULAR SESSION OF THE GENERAL CONFERENCE

The Fifteenth Regular Session of the General Conference was held in Vienna from 21st to 24th September 1971. The Conference elected the following new members to the Board of Governors for the period October 1971 to October 1973: Ceylon; China; Colombia; Congo - Dem. Rep. of (Zaire), Egypt - Arab Rep. of; Greece and Romania. The five members elected last year will remain on the Board until next year's session, they are: Brazil, Chile, the Netherlands, the Syrian Arab Republic and Thailand. The following members had already been designated by the Board at its June meeting for the period from the end of the Fifteenth Regular Session until the Sixteenth Regular Session: Argentina, Australia, Canada, France, India, Japan, South Africa, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America, under Article VI.A.1; Czechoslovak Socialist Republic, Portugal and Norway under Article VI.A.2.

The Conference approved the principles of assessment of members' contributions towards the Agency's administrative expenses, to supplement those set forth in its resolution of 1959. These further principles are intended to take account of the situation created by the increased expenses which will result from the application of safeguards by the Agency in connection with the Non-Proliferation Treaty.

ARTICLE VI OF THE STATUTE

The amendment to Article VI of the Agency Statute approved by the General Conference at its Fourteenth Regular Session has been ratified by 20 Member States, namely: United Kingdom; Norway, Japan, Denmark, Kuwait; Thailand; Morocco; Netherlands; France, Korea; Iran, Germany - Federal Republic; Vietnam; Turkey; Belgium; China; Brazil; Ireland, Panama and New Zealand (listed chronologically).

SAFEGUARDS

The first agreement for the application of safeguards by the Agency in connection with NPT was signed with Finland on 11th June 1971. Subsequently, agreements were also signed with Austria and Uruguay; the texts of agreements with Canada, Bulgaria and Poland have been finalized ad referendum. Negotiations are now in course with a growing number of other countries as well as with EURATOM. A list of the present position with respect to the signature, accession and ratification of NPT is given on the following page.

AFRICA & MIDDLE EAST

1. Botswana*
2. Burundi* (acc)
3. Cameroon
4. Central African Rep.*(acc)
5. Chad*
6. Congo, Dem. Rep. of, (Zaire)
7. Dahomey*
8. Egypt, Arab Rep. of
9. Ethiopia
10. Ghana
11. Iran
12. Iraq
13. Ivory Coast
14. Jordan
15. Kenya
16. Kuwait
17. Lebanon
18. Lesotho*
19. Liberia
20. Libyan Arab Rep.
21. Madagascar
22. Mali, Rep. of
23. Mauritius*
24. Morocco
25. Nigeria
26. Senegal
27. Somalia*
28. Southern Yemen*
29. Sudan
30. Syrian Arab Rep.
31. Swaziland*
32. Togo*
33. Tunisia
34. Upper Volta*
35. Yemen Arab Rep.*
36. Zambia*

THE AMERICAS

1. Barbados*
2. Bolivia
3. Canada
4. Colombia
5. Costa Rica
6. Dominican Rep.
7. Ecuador
8. El Salvador
9. Guatemala
10. Haiti
11. Honduras*
12. Jamaica
13. Mexico
14. Nicaragua*
15. Panama
16. Paraguay
17. Peru
18. Trinidad & Tobago*
19. U.S.A.**
20. Uruguay
21. Venezuela

EUROPE

1. Austria
2. Belgium
3. Bulgaria
4. Cyprus
5. C.S.S.R.
6. Denmark
7. Finland
8. Germany, Dem. Rep. of*
9. Germany, Fed. Rep. of
10. Greece
11. Holy See (acc)
12. Hungary
13. Iceland
14. Ireland
15. Italy
16. Luxembourg
17. Malta*
18. Netherlands
19. Norway
20. Poland
21. Romania
22. San Marino
23. Sweden
24. Switzerland
25. Turkey
26. U.S.S.R.**
27. U.K.**
28. Yugoslavia

ASIA & PACIFIC

1. Afghanistan
2. Australia
3. Ceylon
4. China, Rep. of
5. Indonesia
6. Japan
7. Korea, Rep. of
8. Laos*
9. Malaysia
10. Maldives*
11. Mongolia*
12. Nepal*
13. New Zealand
14. Philippines
15. Singapore
16. Tonga* (acc)
17. Vietnam, Rep. of

Underlined States : ratified, acceded

* Non-members of IAEA

** Depository Governments

● *European Nuclear Energy Agency*

A meeting of the Group of Governmental Experts on Third Party Liability in the Field of Nuclear Energy was held in Paris on 30th June and 1st July 1971.

Among the matters discussed were the following :

REVISION OF THE PARIS CONVENTION

A preliminary exchange of views took place on questions concerning the revision of the Paris Convention, which is due to be considered in 1973. Participation at a revision conference and the scope of the revision were discussed. The Group of Experts will consider this again in more detail at subsequent meetings.

DIPLOMATIC CONFERENCE ON MARITIME CARRIAGE OF NUCLEAR SUBSTANCES

The Legal Committee of the Intergovernmental Maritime Consultative Organization (IMCO) having approved the draft of a new maritime convention to resolve the divergencies between nuclear and maritime conventions concerning the carriage of nuclear substances by sea, the IMCO Council decided that this Convention will be considered at a Diplomatic Conference to be held in Brussels in November 1971. IMCO, IAEA and ENEA will participate jointly in the organisation of this Conference.

NUCLEAR-POWERED SHIPS

The Restricted Working Party on problems related to international agreements for visits of nuclear ships set up by the Group of Governmental Experts in November 1970 (see Nuclear Law Bulletin No. 7), met for the second time in June 1971. This meeting was devoted to continuation of the discussions on the definition and contents of a model visiting agreement as well as to detailed study of a first draft prepared by the Secretariat on the basis of the first meeting of the Restricted Working Party, which had been held in March of the same year. These discussions led to the drafting of a revised model agreement which is now being studied by the competent authorities of the interested countries, and will subsequently be discussed at the next meeting of the Party.

The provisions of the model agreement deal with third party liability problems arising from visits of nuclear ships. Bilateral visiting agreements will also necessarily concern the safety measures to be taken for the design, construction and operation of nuclear ships, as well as the policing of navigation in internal waters and harbours, these questions, however, do not fall within the competence of the Experts on nuclear third party liability and will have to be negotiated between the States wishing to conclude a bilateral visiting agreement.

AGREEMENTS

• *Germany*

NUCLEAR-POWERED SHIPS

The Treaty on the use of Liberian waters and ports by the nuclear-powered ship "Otto Hahn" signed by the Republic of Liberia and the Federal Republic of Germany on 27th May 1970, has been approved by the Bundestag by an Act dated 15th July 1971 /BGBL 1971 II, No. 34, p. 953/.

In addition, the Federal Republic of Germany and Argentina signed a Treaty on 23rd May 1971, on the use of Argentine waters and ports by the nuclear-powered ship "Otto Hahn". The entry of the Otto Hahn into the territorial waters of Argentina, even before the procedures for ratification were completed, was authorized by an exchange of notes between both Governments.

SCIENTIFIC CO-OPERATION

The Agreement signed on 28th August 1970 which has been in force since 23rd October 1970, by the Government of the Federal Republic of Germany and the Government of the Republic of Chile concerning scientific research and technological development was published on 13th January 1971 /BGBL 1971, II, No. 12, p. 106/. Nuclear research and technological development are among the fields covered by this Agreement. Several forms of co-operation are prescribed by Article 2 of the Treaty (exchange of personnel and information, joint projects) as well as the setting up of a joint German-Chilean Committee (Article 4). The Agreement has been signed for a five-year period, and is renewable.

• *Germany Netherlands United Kingdom*

TRIPARTITE INTERNATIONAL CO-OPERATION IN THE FIELD OF THE GAS CENTRIFUGE PROCESS FOR PRODUCING ENRICHED URANIUM

The Co-operation Agreement between the Federal Republic of Germany, the Kingdom of the Netherlands and the United Kingdom of Great Britain and Northern Ireland concerning the development and exploitation of the gas centrifuge process for producing enriched uranium (see Nuclear

Law Bulletin No. 6) signed on 4th March 1970, was approved by the German Bundestag by an Act dated 15th July 1971 (BGBL II, No. 33, p. 9297).

The Federal Republic of Germany deposited its instruments of ratification at the Hague on 19th July 1971. The United Kingdom and the Netherlands having deposited their instruments on 26th March and 18th June 1971 respectively, the Agreement, in accordance with its Article XII, came into force on 19th July 1971.

• *Portugal-Spain*

CO-OPERATION AGREEMENT ON THE PEACEFUL USES OF ATOMIC ENERGY

A Co-operation Agreement on the peaceful uses of atomic energy was concluded between the Portuguese and Spanish Governments. This Agreement which was signed in Lisbon on 14th January 1971 must be ratified in order to come into force. It is based on the general Agreement on scientific and technical co-operation between Portugal and Spain, signed on 22nd May 1970. The co-operation envisaged by both Contracting Parties concerns in particular, an exchange of scientific, technical and industrial information, the exploitation of natural resources and licences. Within this Agreement, both Parties may refer to the IAEA Safeguards Agreement if this proves necessary during the implementation. The Agreement was signed for a five-year period but may be extended on a yearly basis. Each Party may then terminate it by notification six months prior to the date of expiry of the Agreement.

TEXTS

• Greece

DECREE-LAW No. 854 RELATING TO THE CONSTRUCTION AND OPERATION OF NUCLEAR INSTALLATIONS*

WE, CONSTANTINE, KING OF THE HELLENES
on the proposal of the Council of Ministers, have decided and hereby order
as follows :

Section 1

For the purposes of the present Act, nuclear installations shall mean all installations intended for the production of nuclear energy, the use, manufacture and exploitation of nuclear fuels or other radioactive products in large quantities and the storage thereof, and also the storage, processing and disposal of radioactive wastes.

Section 2

1. Special licences of which the list is given, by type of case in subsection 2 of this Section, granted on the request of parties concerned by the Minister for Industry upon the advice of the Greek Atomic Energy Commission shall be required prior to the establishment in a specific location of the installations defined in the preceding Section, their transfer to another site, their erection and fitting out, their conversion, their operation and any transfer of rights over them.

2. The special licences to be applied for under the preceding subsection shall be :

- (a) a licence for establishing an installation in a specific location or for a change of site;

* Unofficial translation by the Secretariat.

- (b) a licence for erection or conversion;
- (c) a licence for experimental operation,
- (d) a licence for normal operation;
- (e) a licence for transfer of rights,

3. The procedure for granting each of the licences listed in subsection 2 of this Section, the prior conditions, terms and administrative clauses relating to their issue, the qualifications required of the staff employed in nuclear installations, as well as the granting to such staff of licences for handling nuclear equipment shall be fixed by Royal Decrees, on the proposal of the Minister for Industry.

4. The safety measures prescribed by the Minister for Industry on the advice of the Atomic Energy Commission, to be observed during the execution of work relating to each of the above cases shall be mentioned in the body of the special licences referred to above.

5. The Minister for Industry, for reasons of safety and upon the advice of the Atomic Energy Commission, shall be empowered to alter the safety measures or withdraw the licence granted.

Section 3

The general safety requirements for all types of nuclear installation shall be defined by joint Orders of the Minister for Industry and other competent ministers concerned in each case, upon advice from the Atomic Energy Commission.

Section 4

The supervision of the implementation of safety measures announced by the Minister, relating to construction, fitting out or operation of nuclear installations, shall be entrusted to a State organization by decision of the Minister for Industry, upon the advice of the Atomic Energy Commission. The same decision shall define the composition, powers and all matters concerning the duties of the aforementioned body.

Section 5

1. Nuclear installations coming under the Ministry for National Defence, installations for nuclear propulsion of ships, and the nuclear installations of the Atomic Energy Commission or those attached to establishments of higher education and used for research shall not be subject to the present provisions.

2. The safety precautions and the procedure for granting the respective licences, as well as the supervision of the operation of installations coming under subsection 1 of this Section shall be determined on a case by case basis by a joint Order of the Prime Minister, the Minister for Industry and the Minister concerned in each case, upon the advice of the Atomic Energy Commission.

Section 6

1. Any person who intentionally
 - (a) is guilty of any act or default which may endanger the life or health of any person or cause any damage to installations during construction, fitting out or operation,
 - (b) contravenes the provisions of the present Decree-Law or those of the Royal implementing decrees and Ministerial orders or fails to observe the conditions imposed by licences granted in each case

shall be liable - if no heavier penalty is laid down by other provisions - to imprisonment for at least two years and a fine of up to 1 million drachmas.

2. Any person who through negligence is guilty of the actions mentioned in the preceding subsection shall be liable to imprisonment for up to two years.

3. When the acts mentioned in subsection 1 and 2 of the present Section are committed by a legal person, its representatives, as defined in its statute or articles, shall be punishable as aforesaid, as shall those persons immediately responsible for directing the operation of the installation.

4. In the event of repeated, intentional commission of the offences mentioned in subsection 1 of this Section, the Court shall be empowered to order confiscation of the nuclear installation in addition to the penalties laid down.

5. Anyone who intentionally and illegally reveals or makes available to third parties papers, drawings or other documents, information, knowledge or methods relating to nuclear installations classified as secret by the authorities, shall be liable to imprisonment. If such person has acted on behalf of a foreign government or, more generally, for a foreign organisation or foreign private undertaking or the agents of any of these, he shall be liable to a term of severe imprisonment.

6. Any person committing the above offences by negligence shall be liable to imprisonment for at least two years. In assessing the penalty, the fact that the person committing these offences had the duty of maintaining secrecy by reason of his office, shall be taken into account by the Court as an aggravating feature.

Section 7

The present Decree shall come into force as from the date of its publication in the Official Gazette.

Athens, 15th March 1971

• *Ireland*

NUCLEAR ENERGY ACT, 1971

ENTITLED

AN ACT TO PROVIDE FOR THE ESTABLISHMENT OF A BOARD TO BE CALLED "AN BORD FUINNIMH NUICLEIGH", TO DEFINE ITS FUNCTIONS AND TO PROVIDE FOR OTHER MATTERS CONNECTED WITH THE MATTERS AFORESAID

BE IT ENACTED BY THE OIREACHTAS AS FOLLOWS

Section 1

1. In this Act :

"the Board" has the meaning assigned to it by Section 3;

"fissile fuel" means a material capable of acting as a source of energy because of its ability to propagate a neutron chain reaction;

"the Minister" means the Minister for Transport and Power,

"nuclear reactor" means a structure containing nuclear fuel and in which a self-sustaining and controlled process of nuclear fission can occur;

"radioactive substance" means a substance which consists of or contains any radioactive chemical element, whether natural or artificial,

"substance" means a natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour, and includes a preparation or manufactured article or article which has been subjected to any artificial treatment or process.

2. In this Act, a reference to a subsection or paragraph is to the subsection or paragraph of the provision in which the reference occurs, unless it is indicated that reference to some other provision is intended.

Section 2

This Act shall come into operation on such day or days as, by Order or Orders made by the Minister under this Section, may be fixed therefor either generally or with reference to any particular purpose or provision, and different days may be so fixed for different purposes and different provisions.

Section 3

1. There shall, by virtue of this Section, be established a board to be known as An Bord Fuinnimh Nucleaigh (in this Act referred to as the Board) to perform the functions assigned to it by this Act.

2. The Board shall be a body corporate with perpetual succession and an official seal (which shall be judicially noticed) and power to sue and be sued in its corporate name and to acquire, hold and dispose of land.

Section 4

1. The Board shall, in addition to any other functions assigned to it by or under this Act have the following general functions

- (a) to advise the Government, the Minister and any other Minister of State on nuclear energy and matters connected therewith ,
- (b) to keep itself informed of developments in nuclear energy and matters connected therewith, with particular reference to the implications for the State of such developments.

2. The Board may, subject to compliance with such conditions as the Minister may prescribe, do all such other things as arise out of or are consequential on the functions assigned to the Board by or under this Act.

Section 5

1. Without prejudice to the generality of Section 4 of this Act, the Board shall have the following particular functions :

- (a) to advise the Government or, with the consent of the Minister, any other person or group of persons engaged in training or research in nuclear science on the acquisition of nuclear reactors or radioactive devices for training or research purposes and, in the event of the acquisition of such reactors or devices, on all aspects of their location, installation, operation and supervision ;
- (b) to advise the Minister on proposals for the construction of nuclear power stations and on all aspects of the installation, operation and supervision of such stations,

- (c) to prepare draft safety codes and regulations dealing with fissile fuel or other radioactive substances or devices and irradiating apparatus, taking into account relevant standards recommended by international bodies dealing with nuclear energy;
- (d) to promote knowledge, proficiency and research in nuclear science and technology and to act as an agency for the collection and dissemination of information on matters relating to nuclear energy,
- (e) to advise the Minister and the Minister for Foreign Affairs regarding representation of the State on international bodies dealing with nuclear energy and to maintain such direct relations with such bodies as may be agreed to by those Ministers.

2. The Minister may from time to time by Order assign to the Board the following functions :

- (a) the making of arrangements for the supply of fissile fuel or such other radioactive substances or devices as may be specified in the Order for use in the State and, where so agreed by the Minister after agreement with the Minister for Foreign Affairs, the conclusion of agreements with the appropriate bodies for this purpose;
- (b) the making of arrangements to ensure the safe custody of fissile fuel and the disposal of such radioactive waste products as may be specified in the Order,
- (c) the making of arrangements to ensure the safe operation of nuclear power reactors in so far as the safety of the public (whether in the State or elsewhere) is likely to be affected by such operation,
- (d) the making of arrangements to ensure the safe operation of nuclear training reactors or radioactive devices;
- (e) the making of arrangements to ensure compliance with any safety codes established or regulations made (whether under this Act, the Health Act, 1953, or the Factories Act, 1955) relating to fissile fuel, radioactive substances or devices or irradiating apparatus;
- (f) in the performance of any function mentioned in this subsection, the control of the custody, use, manufacture, importation, distribution, transportation, insurance, sale, offering or keeping for sale, exportation or other disposal of fissile fuel or such other radioactive substances or devices as may be specified in the Order.

3. Where in an Order under this Section the Minister prescribes conditions, the Board shall comply with such conditions.

4. Before making an Order under this Section, the Minister shall consult the Ministers for Finance, Industry and Commerce, Agriculture and Fisheries, Labour, Foreign Affairs, Education and Health.

5. The Minister may, after consultation with the Ministers for Finance, Industry and Commerce, Agriculture and Fisheries, Labour, Foreign Affairs, Education and Health, by Order revoke or amend an Order under this Section.

Section 6

1. The Minister may, after consultation with the Ministers for Finance, Industry and Commerce, Agriculture and Fisheries, Labour, Health, Education and Foreign Affairs, by Order regulate, restrict or prohibit (save under licence issued by him or by the Board as his agent) the custody, use, manufacture, importation, distribution, transportation, exportation or other disposal of fissile fuel, or of such other radioactive substances or devices or irradiating apparatus, including radioactive waste products, as may be specified in the Order, and any such Order shall have regard to varying levels of radioactivity and to the extent to which such substance, device or apparatus is in his opinion, a danger to the life or health of a person coming into contact therewith.

2. An Order under this Section may contain provisions empowering an officer or servant of the Minister authorised in writing by the Minister or an officer or servant of the Board authorised in writing by the Board to enter upon premises and to carry out such inspection as may be reasonably necessary to ascertain if an Order under this Section is being complied with, and any person who refuses to permit such entry or inspection or who obstructs such inspection shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding one hundred pounds.

3. A licence issued under this Section may be subject to such conditions as the Minister (or, in the case of a licence issued by the Board, the Board) may attach to it, including a condition that the licence may be revoked if the Minister (or the Board) is of the opinion that any such condition has not been observed.

4. Any person who contravenes a provision of an Order under this Section shall be guilty of an offence and be liable .

- (a) on summary conviction, to a fine not exceeding one hundred pounds, or to imprisonment for a term not exceeding three months, or both;
- (b) on conviction on indictment, to a fine not exceeding five hundred pounds, or to imprisonment for a term not exceeding five years, or to both, and
- (c) in every case on conviction for the offence, to the forfeiture of the substance in respect of which the offence was committed.

5. The Minister may by Order amend or revoke an Order under this Section.

Section 7

1. The members of the Board shall be appointed by the Minister with the consent of the Minister for Finance and shall be not more than seven.
2. The period of office of a member of the Board shall be such period, not exceeding five years, as the Minister, with the consent of the Minister for Finance, may determine when appointing him.
3. A member of the Board whose term of office expires by effluxion of time shall be eligible for reappointment.
4. The Minister may, with the consent of the Minister for Finance, remove a member of the Board from office at any time.
5. A member of the Board may at any time resign his office as member by letter sent to the Minister.
6. Where a member of the Board is nominated either as a candidate for election to either House of the Oireachtas or as a member of Seanad Éireann, he shall thereupon cease to be a member of the Board.
7. A person who is for the time being entitled under the Standing Orders of either House of the Oireachtas to sit therein shall, while so entitled, be disqualified from becoming a member of the Board.

Section 8

1. A member of the Board shall be paid, out of funds at the disposal of the Board, such remuneration (if any) and such amounts in respect of expenses as the Minister, with the consent of the Minister for Finance, may (in the case of remuneration) fix from time to time or (in the case of expenses) considers reasonable.
2. Subject to subsection (1), a member of the Board shall hold office on such terms as the Minister, with the consent of the Minister for Finance, may determine from time to time.

Section 9

1. The Minister shall, with the consent of the Minister for Finance, from time to time as occasion requires appoint a member of the Board to be Chairman thereof.
2. The Chairman of the Board shall, unless he sooner dies, resigns the office of chairman or ceases to be chairman under subsection(4) hold office until the expiration of his period of office as a member of the Board.
3. The Chairman of the Board may at any time resign his office as chairman by letter to the Minister, and the resignation shall, unless it is previously withdrawn in writing, take effect at the commencement of the meeting of the Board held next after the Board has been informed by the Minister of the resignation.

4. Where the Chairman of the Board ceases during his term of office as chairman to be a member of the Board, he shall also then cease to be Chairman of the Board.

Section 10

1. A member of the Board who is either directly or indirectly interested in any company or concern with which the Board proposes to make any contract, or in any contract which the Board proposes to make

- (a) shall disclose to the Board the fact and the nature of such interest at the meeting of the Board at which the question of entering into such contract is first considered or, if he has no such interest at that time, as soon as may be after he has acquired such interest;
- (b) shall take no part in any deliberations of the Board relating to such contract save to such extent as the Chairman of the Board may permit;
- (c) shall not vote on a decision relating to such contract, and
- (d) shall not be counted in the quorum present at the meeting dealing with such contract.

2. A disclosure under this Section shall be recorded in the minutes of the Board.

Section 11

1. The Board shall hold such and so many meetings as may be necessary for the due fulfilment of its functions.

2. The Minister may fix the date, time and place of the first meeting of the Board.

3. At a meeting of the Board:

- (a) the Chairman of the Board shall, if present, be chairman of the meeting;
- (b) if and so long as the Chairman of the Board is not present or if the office of chairman is vacant, the members of the Board who are present shall choose one of their number to be chairman of the meeting.

4. Every question at a meeting of the Board shall be determined by a majority of the votes of the members present and voting on the question, and in the case of an equal division of votes, the chairman of the meeting shall have a second or casting vote.

5. The Board may act notwithstanding one or more than one vacancy among its members.

6. Subject to this Act, the Board shall regulate its procedure by rules.

7. The quorum of the Board shall be three.

Section 12

1. The Board shall appoint such and so many persons to be officers and servants of the Board as it from time to time thinks proper.

2. An officer or servant of the Board shall hold his office or employment on such terms and conditions as the Board from time to time determines.

3. There shall be paid by the Board to its officers and servants such remuneration and allowances for expenses as the Board, subject to the approval of the Minister and with the consent of the Minister for Finance, may from time to time determine.

4. The Board may at any time for stated reasons remove any officer or servant of the Board from being its officer or servant.

Section 13

The Board may perform any of its functions through or by any of its officers or servants duly authorised by the Board in that behalf.

Section 14

1. The Board shall prepare and submit to the Minister a contributory scheme or schemes for the granting of pensions, gratuities and other allowances on retirement to or in respect of such officers or servants of the Board as it may think fit.

2. Every such scheme shall fix the time and conditions of retirement for all persons to or in respect of whom pensions, gratuities or allowances on retirement are payable under the scheme, and different times and conditions may be fixed in respect of different classes of persons.

3. The Board may at any time prepare and submit to the Minister a scheme amending a scheme previously submitted and approved of under this Section.

4. A scheme submitted to the Minister under this section shall, if approved of by the Minister with the consent of the Minister for Finance, be carried out by the Board in accordance with its terms.

5. If any dispute arises as to the claim of any person to, or the amount of, any pension, gratuity or allowance payable in pursuance of a scheme under this Section, such dispute shall be submitted to the Minister who shall refer it to the Minister for Finance, whose decision shall be final.

6. Every scheme submitted and approved of under this Section shall be laid before each House of the Oireachtas as soon as may be after it is approved of and if either House, within the next twenty-one days on which that House has sat after the scheme is laid before it, passes a resolution annulling the scheme, the scheme shall be annulled accordingly, but without prejudice to the validity of anything previously done thereunder.

Section 15

1. Where a person who is either an officer or a servant in the employment of the Board becomes a member of either House of the Oireachtas

(a) he shall, during the period commencing upon his becoming entitled under the Standing Orders of that House to sit therein and ending when he ceases to be a member of that House, or, if it should sooner happen, upon his resignation, or retirement from such employment or upon the termination of such employment by the Board, stand seconded from such employment,

(b) he shall not be paid by, or entitled to receive from, the Board any salary or wages, as the case may be, in respect of that period.

2. A person who is for the time being entitled under the Standing Orders of either House of the Oireachtas to sit therein shall, while so entitled, be disqualified from becoming an officer or servant of the Board.

Section 16

1. The Board may from time to time appoint such and so many committees as it thinks proper.

2. The Board may delegate to a committee appointed under this Section any of its functions which, in its opinion, can be better or more conveniently performed by a committee and may regulate the procedure of any such committee.

3. A committee appointed under this Section shall consist of such number of members as the Board thinks proper and may, at the discretion of the Board, consist exclusively of persons who are members of the Board or partly of persons who are members of the Board and partly of persons who are officers of the Board, or partly of persons who are either members or officers of the Board and partly of other persons.

4. The acts of a committee appointed under this Section shall be subject to confirmation by the Board.

5. Section 10 shall apply to a meeting of a committee appointed under this Section as if it were a meeting of the Board.

Section 17

The Board shall have power to charge, receive and recover fees for any services rendered by the Board on behalf of any person other than the Government, the Minister or any other Minister.

Section 18

1. The Board may accept subscriptions of money from industrial firms or other bodies in return for the use by such firms or other bodies of such services and facilities of the Board as the Board may determine.
2. The Board may accept a gift of money, land or other property upon such trusts and conditions, if any, as may be specified by the person making the gift.
3. The Board shall not accept any gift if the conditions attached by the donor to the acceptance thereof are inconsistent with the functions of the Board.

Section 19

The Minister may, in each financial year, pay to the Board with the consent of the Minister for Finance out of moneys provided by the Oireachtas such sum, by way of grant towards the Board's expenses, as the Minister with such consent may determine.

Section 20

1. The Board shall keep in such form as shall be approved by the Minister, after consultation with the Minister for Finance, all proper and usual accounts of all moneys received or expended by it and, in particular, shall keep in such form as aforesaid all such special accounts as the Minister on his own motion, or at the request of the Minister for Finance shall from time to time direct.
2. Accounts kept in pursuance of this Section shall be submitted annually by the Board to the Comptroller and Auditor General for audit at such times as the Minister, with the concurrence of the Minister for Finance, directs and the said accounts, when so audited, shall, together with the report of the Comptroller and Auditor General thereon, be presented to the Minister who shall cause copies thereof to be laid before each House of the Oireachtas.

Section 21

1. The Board shall, in each year, at such date as the Minister may direct, make a report to the Minister of its proceedings under this Act during the preceding financial year, and the Minister shall cause copies of the report to be laid before each House of the Oireachtas.

2. Whenever the Minister so directs, the annual report shall also include information on such particular aspects of the Board's proceedings under this Act as the Minister may specify.

3. The Board shall submit to the Minister such information regarding the performance of its functions or regarding its income or expenditure as he may from time to time require.

Section 22

Every Order made under this Act shall be laid before each House of the Oireachtas as soon as may be after it is made, and if a resolution annulling the Order is passed by either such House within the next twenty-one days on which that House has sat after the Order is laid before it, the Order shall be annulled accordingly, but without prejudice to the validity of anything previously done thereunder.

Section 23

An offence under Section 6 of this Act may be prosecuted by the Board.

Section 24

The Health Act, 1953, is hereby amended :

- (a) by the insertion after "may" in Section 59(4) of ", after consultation with An Bord Fuinnimh Núicléigh,";
- (b) by the insertion before "radioactive" and "irradiating apparatus" in Section 59(4)(a) of "medical";
- (c) by the deletion of Section 59(4)(b); and
- (d) by the insertion after Section 59(5)(a)(v) of the following "(vi) by officers or servants of An Board Fuinnimh Núicléigh,".

Section 25

The Factories Act, 1955, is hereby amended

- (a) by the substitution in the definition of "inspector" in Section 2(1) of "a person" for "an officer of the Minister",
- (b) by the insertion in Section 71(1) after "Minister for Health" of "(or, where a process of manufacture involves the use of radioactive substances within the meaning of the Nuclear Energy (An Board Fuinnimh Núicléigh) Act, 1971, or of radioactive devices or irradiating apparatus, after consultation with An Bord Fuinnimh Núicléigh)", and

- (c) by the insertion in Section 93(1) after "his officers" of "or, where appropriate, officers of An Bord Fuinnimh Núicléigh".

Section 26

The expenses incurred by the Minister in the administration of this Act shall, to such extent as may be sanctioned by the Minister for Finance, be paid out of moneys provided by the Oireachtas.

Section 27

This Act shall be cited as the Nuclear Energy (An Board Fuinnimh Núicléigh) Act, 1974.

• *Italy*

MINISTERIAL DECREE OF 15TH DECEMBER 1970

Exemptions from the notifications and from the authorizations prescribed by Act No. 1860 of 31st December 1962, in implementation of Act No. 1008 of 19th December 1969 *

Section 1

In accordance with Section 3(2) of Act No. 1860 of 31st December 1962, the following are exempted from notification:

- (1) Substances in the form of metals, alloys, chemical compounds, chemical mixtures, solutions, or gases, in which the content of natural or depleted uranium is below a total weight of 10 kg, or in which the content of natural or depleted uranium does not exceed a total of 0.05 % even if the 10 kg total limit in weight indicated above is exceeded.
- (2) Rare earths, their compounds, mixtures, or by-products which do not contain more than a total content of 0.25 % of natural uranium or thorium.
- (3) Ores which do not contain a total of more than 10 kg of natural uranium or thorium.
- (4) Thorium contained in the following equipment :
 - (a) incandescent gas-mantles;
 - (b) vacuum lamps,

* Unofficial translation by the Secretariat.

- (c) welding electrodes,
 - (d) electric light bulbs, providing that each single bulb does not contain more than 50 mg of thorium, and
 - (e) germicide lamps, artificial sun-lamps, outdoor lamps or lamps for industrial lighting provided that each single lamp does not contain more than 2 g of thorium.
- (5) Natural or depleted uranium or thorium contained in the following .
- (a) any products made of vitrified ceramics, if the enamelling does not contain more than 20% in weight of uranium or thorium;
 - (b) any vitreous products, vitreous enamelling, vitreous or porous varnish which do not contain more than 10% in weight of uranium or thorium.
- (6) Any product or part thereof containing an alloy or dispersion of tungsten-thorium, or magnesium-thorium provided that the thorium contained does not exceed 4% of the total weight.
- (7) Natural or depleted uranium contained in counter-weights in aircraft, whether already installed, stored, or being mounted or dismantled.
- (8) Thorium contained in already manufactured optical lenses provided that each lens does not contain more than 30% of thorium in the total weight and that they are not modified by any manufacturing, setting or polishing process.
- (9) Thorium contained in any accessories for aeroplane engines which are manufactured with a nickel-thorium alloy in the form of finely subdivided dioxide and that the thorium contained does not exceed 4% of the weight.

The present provisions do not affect the obligation to comply with the provisions of Decree No. 185 of the President of the Republic in particular those laid down by Sections 30 and 31.

Section 2

The exemption provided by Section 1 of the present Decree does not apply to the facilities or storage buildings in a plant as determined by Section 8 of Decree No. 185 of the President of the Republic, of 13th February 1964.

Section 3

Trade in raw materials or minerals, the total content of which does not exceed 3 kg of natural or depleted uranium or thorium is exempted from the authorization laid down by Section 4 of Act No. 1860 of 31st December 1962. An authorization is necessary, however, when the total quantity of uranium or thorium traded in the solar year exceeds 10 kg.

Trade in radioactive materials is also exempted from authorization provided that their activity for each particular bill of sale is equal to or less than the limits laid down by Sections 2(a), (b), (c), (d), 3 and 4 of the Ministerial Decree of 27th July 1966 (Official Gazette No. 285, 4th November 1966), amended by the Ministerial Decree of 19th July 1967 (Official Gazette No. 20, 11th August 1967). An authorization is necessary, however, when more than 100 single transactions have been effected per solar year.

The present provisions do not affect the obligation to comply with the provisions of Decree No. 185 of the President of the Republic, of 13th February 1964, in particular those prescribed by Section 36.

Section 4

The carriage of special fissionable materials whose total weight does not exceed the limits laid down by Section 1 of Decree No. 185 of the President of the Republic, of 13th February 1964, namely 15 grammes, is not subject to the authorization prescribed by Section 5 of Act No. 1860 of 31st December 1962 amended by Section 2 of Decree No. 1704 of the President of the Republic, of 30th December 1965.

STUDIES AND ARTICLES

ARTICLES

FRENCH REGULATIONS GOVERNING THE USE OF RADIOISOTOPES

J.C. Mayoux
Legal Department
Commissariat à l'Energie Atomique, France *

During the last few years, there has been a substantial rise in the use of radioisotopes in France, both in medicine and in industry, as doctors, pharmacists and industrialists have come to understand the value of using these substances, which, in particular, make it possible for analyses and inspections to be carried out automatically.

With the use of radioisotopes, nuclear energy has now entered all sectors of the economy. It was therefore necessary to make regulations concerning its use in view of the possible harmful effects to man of exposure to ionizing radiations. These regulations serve the double purpose of ensuring the protection of workers and the population, in order that any radiation and contamination be kept to the lowest possible level. Hence the necessity:

- to identify persons possessing radioisotopes, in order to supervise the way in which these are used;
- to lay down rules regarding utilisation and protection, in the interest of workers who might be exposed to ionizing radiations, as well as of the environment.

* The ideas expressed, and the facts given in this article are under the sole responsibility of the author.

I - AUTHORISATION TO POSSESS RADIOISOTOPES

The provisions concerning formalities of notification and authorisation for trade in and possession and use of radioisotopes are given in the Code of public health, Book V, Pharmacy, Title III "Restriction of trade in certain substances or certain articles". A given radioisotope can in different cases be of natural or artificial origin.

- Natural radioisotopes are those which occur in nature, including some isotopes of radium, uranium and thorium.
- Artificial radioisotopes are those which exist as a result of some human action. They are obtained by bombarding stable nuclides in a nuclear reactor or in an accelerator. The artificial radioisotope is defined in Section L 631 of the Code of public health: "Any radioisotope obtained by synthesis or nuclear fission shall be considered as an artificial radioisotope".

Radioisotopes can take two forms:

- either as a sealed source: "Source consisting of radioactive substances, securely incorporated into inactive solid materials, or sealed in an inactive capsule of sufficient strength to prevent any dispersion of radioactive substances under normal conditions of use".
- or as an unsealed source "Source of which the form and normal conditions of use are such that the possibility of dispersion of radioactive substances cannot be excluded".

These definitions are the ones given by French regulations (Decree of 20th June 1966 on the general principles of protection against ionizing radiations and Decree of 15th March 1967 on protection of workers against such radiations).

First, both natural and artificial radioisotopes, whether in medicinal preparations or not, are included in the list A (toxic substances) or poisonous substances. According to Section R-51-51 of the Code of public health, any person wishing to trade in one or more of the substances included in list A, or to engage in industry requiring their use, is obliged to declare the fact to the mayor of the commune. Section R-51-63 specifies that it is forbidden to introduce radioisotopes or products containing radioisotopes into foodstuffs and into sanitary and health products. Poisonous substances intended for human or veterinary medicine may be distributed only by pharmacists.

A. Natural radioisotopes

Apart from the provisions concerning poisonous substances, the Code of public health does not lay down any special rules for the use of natural radioisotopes. Indeed, although Section L 44 of the Code provides that the sale, purchase, use and possession of natural radioisotopes shall be subject to such conditions as may be laid down by general administrative regulations, these regulations are not yet in existence a draft text aimed at extending certain provisions regarding artificial radioisotopes to cover natural radioisotopes has not been proceeded with.

The Decree of 15th March 1967 specifies that unless it is to be used for medical purposes, any employer who possesses a radioactive substance must declare it to the Inspector of labour and manpower, stating the activity in curies, and the nature and form of the source (sealed or unsealed).

When the natural radioisotope is intended for medical use, this declaration is made to the Director for public health in the Département. Thus, as regards natural radioisotopes, only a simple notification system exists at present.

B. Artificial radioisotopes

Possession, use of, and trade in, artificial isotopes are very comprehensively governed by Sections L 631 to 638 of the Code of public health and by Sections R 5234 et seq. These provisions were introduced by the Act of 19th July 1952 on artificial radioisotopes.

Section L 632 establishes the following principle: preparation, importation or exportation of artificial radioisotopes, in any form whatsoever, may be carried out only by the Commissariat à l'Energie Atomique (CEA) or by individuals or legal persons specifically empowered to do so, on a report by a committee known as the "Interministerial Committee on Artificial Radioisotopes" (CIREA).

The Atomic Energy Commission (CEA), which is the main producer and user of radioisotopes, enjoys special treatment owing to its specific competence in this matter. Any other person who intends to possess radioisotopes must obtain a special authorisation from the competent authority, after a report by the CIREA.

The idea of setting up a committee to examine problems linked to the use of artificial radioisotopes was not new. In 1947, a commission with the task of investigating the therapeutic and biological applications of radioisotopes was established under the Minister for Public Health. This commission was replaced in 1949 by an Interministerial Committee for the purchase of artificial radioisotopes abroad, with the object of supervising the use of imported radioisotopes. Any request for purchase with a view to human biology research or therapeutic applications was sent for authorisation to the Minister of health after opinion from the Committee. Any request for purchase with a view to physics, biological, animal or vegetable research was addressed to the Minister for national education, after an opinion from this same Committee.

At the time, radioisotopes were used very little outside the medical and research fields and in fact nearly all the radioisotopes in use came from abroad. However, as the use of radioisotopes spread in industry, and since most of the radioisotopes were now produced in France, it became necessary to extend the responsibility of the Interministerial Committee. This was the aim of the 1952 Act.

The Interministerial Commission on Artificial Radioisotopes, the Chairman of which is a member of the Council of State, consists of 14 members divided into two sections, representing the different ministries and public bodies concerned with the use of radioisotopes: armed forces, public health, CEA, CNRS (National Centre for Scientific Research), National Health Institute, the Ministry for Industrial and Scientific Development. The CEA provides the Secretariat for the Committee. Since the headquarters of this Secretariat are at Saclay, as is the radioisotope department producing, conditioning and despatching the greater part

of the radioisotopes sold in France, the industrial user or doctor wishing to obtain a radioisotope can thus send the request for authorisation at the same time as the order. Once supply is authorised, the Committee forwards the order to the CEA radioisotope department; there is no loss of time. The procedure varies according to whether the radioisotope is intended for human biology and therapeutic applications, or for other applications.

- Authorisation is given by the Minister for Public Health after receipt of an opinion from the first Section of the Committee when these artificial radioisotopes are intended for human biology and therapeutic applications. The Order of 10th November 1967 specifies in this connection that only doctors of medicine meeting certain conditions or holding an authorisation from the Minister for Public Health may use radioisotopes for medical purposes.
- Authorisation is given by the Chairman of the Committee, after receipt of an opinion from its second Section, for artificial radioisotopes intended for all other purposes.

In the request for authorisation, the user must state the activity in curies and the nature of the radioisotope, the form of the source (sealed or unsealed) as well as of the detection facilities he has available. To avoid the procedure thus established from being too cumbersome (it is important, especially for medical purposes, that requests for supplies be met rapidly) each Section of the CIREA has designated two of its members to examine current requests.

In considering requests for authorisation, the Committee may call for the opinion of the Central Service for Protection against Ionising Radiations (SCPRI) which is attached to the Ministry for Public Health and was set up by the Order of 13th November 1956 with the task of carrying out, on request from the competent authorities, any analyses or measurements of radioactive dose, in order to confirm the effectiveness of the protection facilities used. This opinion of the SCPRI may be supplemented by an actual inspection of the installations.

The Committee advises the Directorate General of labour and manpower and the SCPRI of each authorised supply. Authorisation is equivalent to the notification to the labour Inspectorate required by the regulations on the protection of workers. As regards radioisotopes used for medical purposes, the Director for health and social affairs of the Département is advised of the authorisation to supply.

The Committee also forwards a copy of the authorisation to the Service dealing with classified establishments and to the civil defence Directorate of the Département.

It should be mentioned that the authorisation given by the competent authority after opinion from the CIREA is non-transferable. Therefore a further transfer of the source may not take place without a new authorisation. In this way the Committee and the authorities concerned by the use of radioisotopes are able to know exactly the location of artificial radioisotopes, the use which is made of them, and the identity of the responsible holder, all of which simplifies control.

II - USE OF RADIOISOTOPES

Once authorisation has been granted, the user must comply with the conditions of use laid down by the regulations. He must first of all observe the provisions concerning protection against ionizing radiations, the general principles of which were laid down by the Decree of 20th June 1966.

These provisions apply to any activity involving exposure to ionizing radiations. The Decree of 20th June 1966 classifies radioisotopes according to their relative radiotoxicity, determines the maximum permissible concentrations in breathed air and in drinking water, fixes the maximum permissible doses for persons directly involved in radiation work, for persons not directly involved in such work and for members of the public, i.e. the population as a whole.

Finally the Decree of 20th June 1966 states the general principles for protection and supervision so as to protect persons directly or indirectly concerned with radiation work.

Furthermore the user must conform, in cases of medical use of radioisotopes, with the Circular of 3rd July 1961 which lays down the conditions for medical use of artificial radioisotopes (layout of areas where radioisotopes are used, protective measures, arrangements concerning the discharge of radioactive effluents).

As regards industrial use, the user must comply with the regulations concerning classified establishments. These regulations concern "factories, workshops, works, stores, construction sites and all industrial or commercial establishments which involve possible hazards to the safety, health or convenience of the neighbourhood, either in regard to public health, or in regard to agriculture". Natural or artificial radioactive substances are considered as dangerous materials, according to the legislation on classified establishments. They form list No. 385. Radioisotopes liable to be contained in radioactive substances are arranged in three categories depending on their radiotoxicity, according to the total activity of the products processed, used or stored in the establishment.

Establishments in the first and second categories cannot be opened without an authorising Order from the Préfet, which lays down the measures to be taken to prevent danger and inconvenience to the neighbourhood.

A declaration must be sent to the Préfet concerning the establishments in the third category before they may be opened. The general requirements that industries in the third category must satisfy are defined in a standard Order. This Order contains a number of general requirements concerning, in particular, the layout of the area where radioactive substances are handled and the premises where they are stored, radioactive discharges, the maximum dose-rates outside the establishment, and the plans which must be sent to the fire services in view of the possibility of their being called upon. The principal aim of these provisions is the protection of the neighbourhood.

Classified establishments are placed under the supervision of the Préfet, with the assistance of the Inspectors of classified establishments who ensure the strict observance of the conditions imposed on industries in the first two categories in the Prefectoral Order of

authorisation, see to it also that the general requirements governing undertakings in the third category are respected, and report any infringements committed by those concerned.

Basic nuclear installations do not come under the regulations on classified establishments, but are subject to an authorisation and inspection system set up by the Decree of 11th December 1963. If the user employs staff liable to be exposed to ionizing radiations, he must also comply with the provisions of the Decree of 15th March 1967 on the protection of workers. The provisions of this Decree were adopted to implement the Decree of 20th June 1966.

Except for basic nuclear installations which come under special regulations, and establishments where there are sources of only low activity, this text covers all establishments within the Labour Code whose personnel is exposed to ionizing radiations. Its aim is to ensure the protection of workers in order that the doses they receive do not exceed the maximum permissible doses. The Decree of 15th March 1967 contains a number of administrative, technical and medical provisions :

- administrative measures - some of these provisions are supplementary to those of the Code of public health concerning authorisation for possession of radioisotopes. It is specified that the CIREA shall inform the labour Inspectorate and the SCPRI if supply of radioisotopes is authorised. The employer must also declare to the labour Inspectorate and to the SCPRI when the use of any radiation source is finally terminated, and must keep up to date a document giving the characteristics of the source and the type of work carried out; furthermore, the employer must designate a competent person under whose supervision handling and use of radioactive sources must take place,
- technical measures concern primarily the obligation to mark out a controlled area around the radiation source, to use protection facilities, to have the sources inspected and to arrange for monitoring the environment around the sources;
- medical measures for confirming whether workers habitually assigned to work within the controlled area have no relevant disability,
- special provisions are laid down for establishments where treatment is given as well as for private medical or dental surgeries.

However, in view of the development of technology it is difficult to lay down regulations which are totally comprehensive. For this reason in the event of gaps or inadequacies in the regulations, the conditions of use are fixed by the authority competent to grant each separate authorisation after opinion from the first or second Section of the CIREA according to whether a medical or non-medical authorisation is required. Hence the CIREA has drawn up conditions of use for certain types of artificial radioisotopes (thickness gauges, gamma-radiography, portable appliances, luminous paints).

When a request for authorisation gives rise to special technical problems, the relevant Section of the CIREA determines the appropriate conditions for this usage. Thus recently the first Section

examined the conditions of use on man of an isotopic microgenerator incorporated in a cardiac pacemaker. The second Section was recently consulted as to the conditions of use of an isotopic generator for use in undersea prospecting.

French regulations concerning the authorisation and use of radioisotopes thus give an Interministerial Committee substantial powers concerning not only the distribution of radioisotopes but also the use which is made of them. This Committee meets frequently either by Sections or in plenary session. Its Secretariat has a very heavy task, since it handles all applications for authorisation, of which the number is constantly increasing. During 1970 it examined about 31,000 instances of radioisotope supply, extending from radioisotopes in the natural state to labelled molecules.

In addition, the CIREA is required in plenary session to examine all general questions arising out of the drafting of regulations for radioisotopes. All draft legislation prepared for defining the regime applicable to nuclear installations, the rules regarding protection, and those for transport are submitted to it for an opinion.

The CIREA has played and is continuing to play in France an essential role in drafting and harmonizing nuclear regulations as a whole.

SOME OTHER RECENT PUBLICATIONS OF ENEA

ACTIVITY REPORTS

| | |
|---|---|
| Reports on the Activities of ENEA | Eleventh Report (December 1969) 97 pages (crown 4to) Twelfth Report (November 1970) 119 pages (crown 4to) Thirteenth Report (in preparation) Free on request |
| Annual Reports of the OECD High Temperature Reactor Project (DRAGON) | Tenth Report (1968-1969) 172 pages (crown 4to) Eleventh Report (1969-1970) 193 pages (crown 4to) Twelfth Report (1970-1971) 140 pages (crown 4to) Free on request |
| Annual Reports of the OECD Halden Reactor Project | Ninth Report (1968) 175 pages (crown 4to) Tenth Report (1969) 162 pages (crown 4to) Eleventh Report (1970) 147 pages (crown 4to) Free on request |
| Activity Reports of the European Company for the Chemical Processing of Irradiated Fuels (EUROCHEMIC) | 1968 Activity Report 63 pages (crown 4to) 1969 Activity Report 80 pages (crown 4to) Free on request |

SCIENTIFIC AND TECHNICAL CONFERENCE PROCEEDINGS

| | |
|---|---|
| Physics Measurements in Operating Power Reactors | Rome Seminar, May 1966 848 pages (crown 4to) £ 6.14s., \$ 22, FF 92, FS 84 DM 76.50 |
| Radiation Dose Measurements (Their purpose, interpretation and required accuracy in radiological protection) | Stockholm Symposium, June 1967 597 pages (crown 4to) 64s., \$ 11, FF 44, FS 44, DM 36 50 |

| | |
|---|---|
| Technology of Integrated Primary Circuits for Power Reactors | Paris Symposium, May 1968 FF 25 (available on application to ENEA) |
| Application of On-Line Computers to Nuclear Reactors | Sandefjord Seminar, September 1968 900 pages (crown 4to) £7.5s., \$ 20, FF 85, FS 78, DM 70 |
| Third Party Liability and Insu- rance in the Field of Maritime Carriage of Nuclear Substances | Monaco Symposium, October 1968 529 pages (crown 8vo) £2.12s., \$ 7.50, FF 34, FS 28.50, DM 22.50 |
| The Physics Problems of Reactor Shielding | Specialist Meeting, Paris, December 1970 175 pages £1.75s., \$ 5, FF 23, FS 20, DM 15.60 |
| Magnetohydrodynamic Electrical Power Generation Fifth International Conference | Munich, April 1971 499 pages £4.88, \$ 14, FF 65, FS 50, DM 43 |

SCIENTIFIC AND TECHNICAL PUBLICATIONS

| | |
|---|---|
| Radiation Protection Norms | Revised Edition 1968 Free on request |
| Radioactive Waste Disposal Operation into the Atlantic 1967 | September 1968 74 pages (crown 8vo) 12s., \$ 1.80, FF 7, FS 7, DM 5.80 |
| Power Reactor Characteristics | September 1966, 83 pages (crown 4to) 15s., \$ 2.50, FF 10, FS 10, DM 8.30 |
| Uranium Resources (Revised Estimates) | December 1967 27 pages (crown 4to) Free on request |
| Prospects for Nuclear Energy in Western Europe : Illustrative Power Reactor Programmes | May 1968 47 pages (crown 4to) 17s.6d., \$ 2.50, FF10, FS 10, DM 8 30 |
| Uranium - Production and Short Term Demand | January 1969 29 pages (crown 4to) 7s., \$ 1, FF 4, FS 4, DM 3.30 |
| Uranium Resources, Production and Demand | September 1970 54 pages (crown 4to) £1, \$ 3, FF 13, FS 11.50, DM 9.10 |
| Water Cooled Reactor Safety | May 1970 179 pages (in-4° coquille) £1.10s.6d, \$ 4.50, FF 20, FS 17.50 DM 13.60 |
| Basic Approach for Safety Analysis and Control of Pro- ducts Containing Radionuclides and Available to the General Public | June 1970 31 pages (crown 8vo) 11s., \$ 1.50, FF 7, FS 6, DM 4.90 |

Glossary of Terms and Symbols
in Thermionic Conversion

1971, 112 pages (crown 4to)
£ 1.75s., \$ 5, FF 23, FS 20, DM 15.60

LEGAL PUBLICATIONS

Statute of ENEA, Convention on
Security Control, European
Nuclear Energy Tribunal, Acts
Relating to Joint Undertakings

1957-63
192 pages (crown 4to)
Free on request

Convention on Third Party
Liability in the Field of
Nuclear Energy

July 1960, incorporating provisions
of Additional Protocol of January 1964
73 pages (crown 4to)
Free on request

Nuclear Legislation, Analytical
Study : "Nuclear Third Party
Liability"

1967
78 pages (crown 8vo)
14s., \$ 2.30, F 9, DM 7.50

Nuclear Legislation, Analytical
Study : "Organisation and General
Regime Governing Nuclear
Activities"

1969
230 pages (crown 8vo)
£ 2, \$ 6, F 24, FS 24, DM 20

Nuclear Law Bulletin

Annual subscription
Two issues and supplements
18s.6d., \$ 2.75, F 12, FS 10.50, DM 8.40

PUBLIC INFORMATION

A Quick Look at ENEA

Illustrated leaflet

Ten years of Nuclear
Co-operation : Programme
and Progress of the OECD
European Nuclear Energy
Agency

Reprint from "OECD Observer"
February 1968

EUROCHEMIC

Illustrated booklet

HALDEN

Illustrated booklet

DRAGON

Illustrated booklet

Free on request

OECD SALES AGENTS DÉPOSITAIRES DES PUBLICATIONS DE L'OCDE

ARGENTINE

Librería de las Naciones
Alonso 300, BUENOS AIRES.

AUSTRALIA - AUSTRALIE

B.C.N. Agencies Pty Ltd.,
178 Collins Street, MELBOURNE 3000.

AUSTRIA - AUTRICHE

Gerold and Co. Graben 31 WIEN I
Sub-Agent GRAZ, Buchhandlung Jos. A. Kiss-
reich Seckstrasse 6

BELGIUM - BELGIQUE

Librairie des Sciences
Coudenberg 76-78, B 1000 BRUXELLES I

BRAZIL - BRÉSIL

Mestre Jon S.A.,
Rua Guspi 518, SAO PAULO 10
Rua Senador Dantas 19 s/205-6, RIO DE
JANEIRO GB

CANADA

Information Canada

OTTAWA

DENMARK - DANEMARK

Møkkgaard Boghandel, Ltd., Nørregade 6
KOBENHAVN K

FINLAND - FINLANDE

Akatemien Kirjakauppa, Keskuskatu 2,
HELSINKI

FORMOSA - FORMOSE

Books and Scientific Supplies Services, Ltd
P.O.B 83, TAIPEI

TAIWAN

FRANCE

Bureau des Publications de l'OCDE
2 rue André-Pascal, F 75 PARIS 16e
Principaux sous-dépôtaires
75 PARIS Presses Universitaires de France,
40 bd Saint-Michel, 5e
Sciences Politiques (Lib.) 38 rue Saint-Guilhem, 7e
13 Aix-en-Provence Librairie de l'Université,
38 GRENOBLE Arthaud
67 STRASBOURG Bergin-Levrault,
31 TOULOUSE Privat.

GERMANY - ALLEMAGNE

Deutscher Bundes-Verlag G.m.b.H
Postfach 9380, 53 BONN
Sub-Agents BERLIN 62 Elwert & Meiner
HAMBURG Reuter-Kirchner und in den
entsprechenden Buchhandlungen Deutschlands.

GREECE - GRÈCE

Librairie Kauffmann, 28 rue du Stade,
ATHENES 132.
Librairie Internationale Jean Mihaleopoulos et Fils
75 rue Hermou, B.P. 73 THESSALÓNIKI

ICELAND - ISLANDE

Smábjörn Jónsson and Co., h.f., Hafnarstræti 9,
P.O.B 1131 REYKJAVIK

INDIA - INDE

Oxford Book and Stationery Co
NEW DELHI, Scindia House
CALCUTTA, 17 Park Street.

IRELAND - IRLANDE

Eason and Son, 40 Lower O'Connell Street,
P.O.B 42, DUBLIN 1

ISRAEL

Emmanuel Brown
9 Princess Mary Avenue, JERUSALEM
35 Alceby Road, and 48 Nablith Benjamin St.
TEL-AVIV

ITALY - ITALIE

Libreria Commissionaria Sansoni
Via Lamarmora 45 50 121 FIRENZE.
Sous-dépôtaires
Editrice e Libreria Herder
Piazza Montecitorio 121 00 186 ROMA
Libreria Rizzoli, Largo Cigno 15, 00 187 ROMA
Libreria Hoepli, Via Hoepli 5, 20 121 MILANO
Libreria Lattes, Via Garibaldi 3 10 122 TORINO
La diffusion des éditions OCDE est assurée au-
paravant par les meilleures librairies dans les villes les plus importantes.

JAPAN - JAPON

Maruzen Company Ltd.
6 Tori-Nichome Nishinohashi, TOKYO 103
P.O.B 3030, Tokyo International 100-31

LEBANON - LIBAN

Rutico
Immeuble Edison, Rue Bliss, B.P. 5641
BEYROUTH

MALTA - MALTE

Labour Book Shop, Workers Memorial Building,
Old Bakery Street, VALETTA

THE NETHERLANDS - PAYS-BAS

W.P. Van Stockum
Buitenhof 36, DEN HAAG
Sub-Agents AMSTERDAM C Scheffers and
Holkema, N.V. Rokin 74-76 ROTTERDAM
De Wester Boekhandel, Nieuwe Binnenweg 331

NEW ZEALAND - NOUVELLE-ZÉLANDE

Government Printing Office,
Mulgrave Street (Private Bag), WELLINGTON
and Government Bookshops at
AUCKLAND (P.O.B 5344)
CHRISTCHURCH (P.O.B 1721)
HAMILTON (P.O.B 857)
DUNEDIN (P.O.B 1104).

NORWAY - NORVEGE

Johan Grundt Tanums Bokhandel,
Karl Johansgate 41/43 OSLO 1

PAKISTAN

Mirza Book Agency 65 Shahrah Quaid-E-Azam
LAHORE 3

PORTUGAL

Livraria Portugal, Rua do Carmo 70, LISBOA

SPAIN - ESPAGNE

Mundi Prensa, Casald 37 MADRID 1
Librería Bastinos de José Bosch Pelayo 52,
BARCELONA 1

SWEDEN - SUÈDE

Fritzes, Kungl. Hovbokhandel,
Frostmattan 2, STOCKHOLM 16

SWITZERLAND - SUISSE

Librairie Payot, 6 rue Greuss, 1211 GENEVE 11
et à LAUSANNE, NEUCHÂTEL VEVEY
MONTREUX, BERNE, BALE, ZÜRICH

TURKEY - TURQUIE

Librairie Hachette, 469 Istiklal Caddesi, Beyoğlu,
ISTANBUL et 12 Ziya Gökalp Caddesi, ANKARA

UNITED KINGDOM - ROYAUME-UNI

H.M. Stationery Office, P.O.B 569 LONDON
S.E.1

Branches at EDINBURGH BIRMINGHAM

BRISTOL MANCHESTER CARDIFF

BELFAST

UNITED STATES OF AMERICA

OECD Publications Center Suite 1207
1750 Pennsylvania Ave, N.W.
WASHINGTON D.C. 20006 Tel (202)298-8755

VENEZUELA

Librería del Este, Avda. F. Miranda 52,
Edificio Galipan, CARACAS

YUGOSLAVIA - YOUGOSLAVIE

Jugoslavenska Knjiga, Terazije 27 P.O.B 36,
BEOGRAD

Les commandes provenant de pays où l'OCDE n'a pas encore désigné de dépositaire
peuvent être adressées à

OCDE, Bureau des Publications, 2 rue André-Pascal 75 Paris 16e

Orders and inquiries from countries where sales agents have not yet been appointed may be sent to
OECD, Publications Office, 2 rue André-Pascal, 75 Paris 16e

O.E.C.D. PUBLICATIONS
2, rue André-Pascal Paris 16e

No 29 705 1971

PRINTED IN FRANCE

NUCLEAR LAW

Bulletin

S U P P L E M E N T T O N ° 8

FINLAND: DRAFT NUCLEAR LIABILITY ACT

November 1971



F I N L A N D

DRAFT NUCLEAR LIABILITY ACT *

GENERAL PROVISIONS

Section 1

For the purposes of this Act:

- (a) "Nuclear fuel" means fissionable material consisting of uranium or plutonium metal, alloy or chemical compound and such other fissionable material as the Government shall determine;
- (b) "Radioactive products" means any radioactive material other than nuclear fuel, and radioactive waste, if the material or waste has been produced in the process of producing or utilizing nuclear fuel or has become radioactive by exposure to radiation incidental to such production or utilization;
- (c) "Nuclear substances" means nuclear fuel other than natural uranium or depleted uranium, and radioactive products other than radioisotopes which are used or prepared to be used for any industrial, commercial, agricultural, medical or scientific purpose;
- (d) "Nuclear reactor" means any structure containing nuclear fuel in such an arrangement that a self-sustaining chain process can occur therein without an additional source of neutrons;

* Unofficial translation prepared by the Finnish Authorities.

- (e) "Nuclear installation" means any nuclear reactor other than one with which a ship or any means of transport is equipped for use as a source of power;
- any factory for the production or processing of nuclear substances;
- any factory for the separation of isotopes of nuclear fuel;
- any factory for the reprocessing of irradiated nuclear fuel;
- any facility where nuclear substances are stored with the exception of any facility intended exclusively for storage incidental to the carriage of such substances;
- any such other installation containing nuclear fuel or radioactive products as the Government shall determine;
- (f) "Installation State", in relation to a nuclear installation, means the Contracting State within the territory of which that installation is situated or, if it is not situated within the territory of any State, the Contracting State by which the nuclear installation is operated or which has authorized its operation;
- (g) "Operator" means, in relation to a nuclear installation situated in Finland, the person operating or in charge of the installation, whether authorized thereto or not, and, in relation to a nuclear installation outside Finland, the person recognized under the law of the Installation State as the operator of that installation;
- (h) "Nuclear damage" means
- (1) any damage caused by the radioactive properties of nuclear fuel or radioactive products or a combination of radioactive properties with toxic, explosive or other hazardous properties of such fuel or products;
 - (2) any damage caused by ionizing radiation emitted from any source of radiation outside a nuclear installation other than nuclear fuel or radioactive products;
- (i) "Nuclear incident" means any occurrence or series of occurrences having the same origin which causes nuclear damage;
- (j) "Paris Convention" means the Convention on Third Party Liability in the Field of Nuclear Energy, signed in Paris on 29th July 1960 and amended by the Additional Protocol signed in Paris on 28th January 1964;
- (k) "Supplementary Convention" means the Convention supplementary to the Paris Convention, signed in Brussels on 31st January 1963 and amended by the Additional Protocol signed in Paris on 28th January 1964;
- (l) "Contracting State" means any State Party to the Paris Convention.

Section 2

The Government may prescribe that any nuclear installation, nuclear fuel or radioactive products shall be excluded from the application of this Act, if the small extent of the risks involved so warrants.

Section 3

The Government or an authority appointed by the Government may determine that two or more installations operated by one and the same operator and located at the same site shall, for the purposes of this Act, be deemed to be one single installation.

Section 4

This Act does not apply to nuclear damage resulting from nuclear incidents occurring in the territory of a non-contracting State.

Where liability lies with an operator of a nuclear installation situated in Finland, this Act applies to nuclear damage suffered in the territory of a non-contracting State only if the nuclear incident occurred in Finland. Where liability lies with an operator of a nuclear installation situated outside Finland, the territorial extent of the liability is governed by the law of the Installation State.

In relation to a non-contracting State it may be determined by Statutory Order that compensation for nuclear damage suffered in the territory of that State shall be payable under this Act only if and to the extent that compensation for nuclear damage suffered in Finland would be payable under the law of that State. Such decision shall not, however, affect liability arising under any such international agreement as referred to in Section 15, paragraph 3 by which Finland is bound.

Provisions regarding the right in certain cases of a person who has paid compensation for nuclear damage to bring, notwithstanding the provisions of this Section, an action of recourse against an operator of a nuclear installation are laid down in Section 16.

Section 5

By Statutory Order it may, with due regard to Finland's obligations under the Paris Convention, be determined that a non-contracting State shall for the purposes of this Act be deemed to be a Contracting State.

COMPENSATION

Section 6

The operator of a nuclear installation shall be liable to pay compensation for nuclear damage caused by a nuclear incident in his installation. However, except if otherwise stipulated by express terms of a contract in writing, the operator shall not be liable in respect of a nuclear incident involving no nuclear fuels or radioactive products other than such nuclear substances as have been stored incidentally in the installation during the carriage referred to in Sections 7 and 8, and the liability for nuclear damage thereby caused shall lie pursuant to Section 9 with the operator in charge of the carriage of the nuclear substances.

Section 7

The operator of a nuclear installation shall be liable to pay compensation for nuclear damage caused by a nuclear incident occurring in the course of carriage of nuclear substances from a nuclear installation situated in Finland or in the territory of another Contracting State, except if otherwise provided in paragraphs 2 and 3 of this Section.

In the case of carriage of nuclear substances to a nuclear installation situated in Finland or in the territory of another Contracting State the liability for damage caused by a nuclear incident occurring in the course of the carriage shall lie with the consignee operator as from the time which has been fixed by a written contract between him and the consignor. In the absence of such contract the liability shall be transferred to the consignee when the nuclear substances are taken in charge by him.

In the case of carriage of nuclear substances to a nuclear reactor with which a ship or any other means of transport is equipped and which is intended to be used therein as a source of power, the consignor operator shall cease to be liable when the nuclear substances have been taken in charge by the person duly authorized to operate or be in charge of that reactor.

Section 8

Where nuclear substances are sent from a non-contracting State to a nuclear installation situated in Finland or in the territory of another Contracting State with the written consent of the operator of that installation, the latter shall be liable for nuclear damage caused by any nuclear incident occurring in the course of the carriage, except if otherwise provided in paragraph 2 of this Section.

In the case of carriage of nuclear substances from a nuclear reactor with which a ship or any other means of transport is equipped and which is intended to be used therein as a source of power, to a nuclear installation situated in Finland or in the territory of another Contracting State, the operator of that installation shall be liable from the time when he takes charge of the nuclear substances.

Liability for nuclear damage caused by a nuclear incident occurring in Finland in the course of carriage of nuclear substances, other than carriage from or to a nuclear installation situated in Finland or in the territory of another Contracting State, shall lie with the person authorized to perform the carriage. The provisions of this Act relating to an operator of a nuclear installation situated in Finland shall in such case apply to the person thus authorized.

Section 9

The provisions of Sections 7 and 8 of this Act on liability for nuclear damage caused by a nuclear incident in the course of carriage of nuclear substances shall apply also in respect of nuclear incidents occurring while the substances are stored incidentally to their carriage, except where the substances have been stored in a nuclear installation and the operator of that installation is liable pursuant to such contract as referred to in Section 6.

Section 10

Where nuclear damage in cases other than those governed by Sections 6 - 9 of this Act has been caused by nuclear substances which came from a nuclear installation situated in Finland or in the territory of another Contracting State or, prior to the nuclear incident, had been in the course of such carriage as referred to in Section 8 of this Act, the operator who had the substances in his possession at the time of the incident shall be liable for such damage; provided that, if at the time of the incident no operator had the nuclear substances in his possession, liability shall lie with the operator who last had the substances in his possession. However, if prior to the nuclear incident the nuclear substances had been in the course of carriage and no operator had taken charge of the substances after the carriage was interrupted, liability shall lie with the operator who at the time when the carriage ended was liable pursuant to Section 7 or 8 of this Act for nuclear damage caused by a nuclear incident occurring in the course of the carriage.

Section 11

On request of a carrier performing such carriage as referred to in Section 7 or 8 the Government, or an authority appointed by the Government, may determine that the carrier shall be liable, in place of the operator of a nuclear installation situated in Finland, for nuclear damage caused by a nuclear incident occurring in the course of or in connection with the carriage. Such decision may be taken only if the operator concerned has consented thereto and the carrier has demonstrated that insurance has been taken out pursuant to Sections 23 - 27 or that other financial security has been furnished pursuant to Section 28 paragraph 2. Where such decision has been taken, any provision of this Act relating to the operator concerned shall apply to the carrier instead of the operator in respect of nuclear incidents occurring in the course of or in connection with the carriage.

Where a similar decision has been taken according to the law of another Contracting State in respect of nuclear damage for which an operator of a nuclear installation situated in that State would be liable, such decision shall under this Act have the same effect as a decision pursuant to paragraph 1 of this Section.

Section 12

The operator of a nuclear installation shall be liable to pay compensation due under this Act even if there has been no fault or negligence on his part.

However, the operator of a nuclear installation situated in Finland shall not be liable under this Act for nuclear damage caused by a nuclear incident directly due to an act of war, armed conflict, civil war or insurrection or caused by a grave natural disaster of an exceptional character. To the operator of a nuclear installation situated in the territory of another Contracting State shall in such case be applicable the law of the Installation State.

In cases referred to in paragraph 2 of this Section, liability under rules of the law of torts other than those laid down in this Act shall arise only to the extent provided for in Section 15 paragraph 2.

Section 13

The operator of a nuclear installation shall not be liable under this Act for damage to the nuclear installation itself or to any property which, at the time of the nuclear incident, was on the site of the installation and was used or intended to be used in connection with that installation.

Where the operator of a nuclear installation situated in the territory of another Contracting State is liable for damage caused by a nuclear incident occurring in the course of carriage of nuclear substances, the question whether compensation shall be awarded to damage to the means of transport shall be governed by the law of the Installation State.

In cases referred to in the preceding paragraphs of this Section liability under rules of the law of torts other than those laid down in this Act shall arise only to the extent provided for in Section 15 paragraph 2.

Section 14

Except as otherwise provided in this Act, compensation payable under the Act shall be fixed in accordance with the general rules of the law of torts.

Where the person suffering damage has contributed thereto the operator may be exonerated, wholly or partially from his liability only where such person has acted or omitted to act with intent to cause damage or where there has been gross negligence on his part.

Section 15

Claims for compensation for nuclear damage covered by the provisions of this Act relating to compensation for such damage or by the corresponding legislation of another Contracting State may be brought against any person other than the operator or the person providing insurance covering the liability of the operator, except as otherwise provided in Section 17 paragraph 2.

Claims for compensation for nuclear damage for which the operator, pursuant to Section 12 or 13 of this Act or the corresponding provisions of the law of another Contracting State, is not liable can be brought against an individual who has caused the damage by an act or omission done with intent to cause damage. The operator shall, however, be liable in accordance with the general rules of the law of torts for such damage to a means of transport as referred to in Section 13 paragraph 2.

As regards liability for nuclear damage caused by a nuclear incident occurring in the course of carriage of nuclear substances or nuclear damage otherwise arising in connection with the operation of a ship or any other means of transport the provisions of paragraphs 1 and 2 of this Section shall not affect the application of any international agreement in force or open for signature, ratification or accession on 29th July 1960 or of any provisions of national legislation based on such agreement. By Statutory Order it may be determined that this shall apply also to other provisions of the law of a Contracting State which are equivalent to the provisions of such agreement.

Provisions on compensation out of public funds are laid down in Sections 29 - 36.

Section 16

Any person who has been held liable to pay compensation for nuclear damage under such international agreement or provisions of national legislation as referred to in Section 15 paragraph 3 of this Act or under the law of any foreign State shall acquire by subrogation the rights of the person suffering the damage against the operator liable for the damage under this Act. Where the compensation paid relates to damage covered by a decision taken under Section 4 paragraph 3 of this Act, the person liable shall have a right of recourse against the operator, who would have been liable for the damage if no such decision had been taken.

Any person who has his principal place of business in Finland or in the territory of another Contracting State or who is the servant of such person and who has been held liable to pay compensation for nuclear damage for which the person suffering damage, by virtue of the provisions of Section 4, has no right to compensation under this Act shall, subject to the application, mutatis mutandis, of the provisions of the first sentence of paragraph 1 of this Section, have a right to recourse against the operator who, but for the provisions of Section 4, would have been liable for the damage; provided, however, that in the case of nuclear damage caused by a nuclear incident occurring in the course of carriage of nuclear substances to a non-contracting State, the operator of the nuclear installation from which the nuclear substances were sent shall incur no liability after the substances have been unloaded from the means of transport by which they have arrived in a non-contracting State, and in case of nuclear damage caused by a nuclear incident occurring in the course of carriage of nuclear substances from a non-contracting State the operator of that installation shall incur no liability until the nuclear substances have been loaded on the means of transport by which they are to be carried from the territory of a non-contracting State.

A person who is himself liable for nuclear damage pursuant to Section 21 of this Act shall have no right of subrogation or recourse under this Section.

Section 17

Where a person has simultaneously suffered nuclear damage for which he is entitled to compensation under this Act and other damage, the provisions of this Act regarding liability for nuclear damage shall apply equally to such other damage if and to the extent that such damage is not reasonably separable from the nuclear damage.

The provisions of paragraph 1 shall not, however, limit or otherwise affect the liability of a person other than the operator liable under this Act as regards damage caused by an emission of ionizing radiation not covered by this Act.

Section 18

The liability under this Act of an operator of a nuclear installation situated in Finland shall not exceed forty-two million marks in respect of nuclear damage caused by any one nuclear incident. The Government may, taking account of the size or character of a nuclear installation, of the extent of a carriage or of any other circumstances, fix a lower amount, which shall, however, in no event be less than twenty-one million marks. In case of a nuclear incident occurring in the course of carriage of nuclear substances the liability of the operator under this Act for damage other than damage to the means of transport shall in no case be limited to an amount less than twenty-one million marks.

The amounts referred to in paragraph 1 of this Section shall not include any interest or costs awarded by a court.

Section 19

Where nuclear damage gives rise to the liability of two or more operators, they shall be jointly and severally liable to pay compensation; provided that the liability of each operator shall be limited to the amount established with respect to him pursuant to Section 18 paragraph 1. However, where the damage has arisen in the course of carriage of more than one consignment of nuclear substances carried on one and the same means of transport or while more than one consignment has been stored in one and the same nuclear installation incidentally to their carriage the aggregate liability of the operators shall not exceed the highest amount established with respect to any of them.

The apportionment of the aggregate liability as between the operators liable shall be determined with due regard to the extent to which the damage caused is attributable to each of the nuclear installations involved as well as to any other relevant circumstances.

Section 20

If the maximum amount of liability applicable pursuant to Section 18 paragraph 1 or Section 19 paragraph 1 is not sufficient to satisfy in full the claims of those who are entitled to compensation, their compensation and any interest accruing thereto shall be reduced proportionally.

If, following a nuclear incident, there are reasons to believe that a reduction pursuant to paragraph 1 of this Section will prove necessary the Ministry for Social Affairs and Public Health may decide that until further notice the compensation payable shall be reduced to a fixed percentage.

Section 21

In respect of any sum that the operator of a nuclear installation has been held liable to pay as compensation under this Act or under the corresponding legislation of another Contracting State, the operator shall have a right of recourse against any individual who has caused the damage by an act or omission done with intent to cause damage or against any person who has assumed liability for the damage under the express terms of a contract in writing with the operator. Except as otherwise provided in Section 17 paragraph 2 and in Section 19 paragraph 2 the operator of a nuclear installation shall in no other case have a right of recourse against any person in respect of any sum he may have paid as compensation under this Act or under the corresponding legislation of another Contracting State.

Section 22

The right to bring an action for compensation for nuclear damage under Sections 6 - 10 or 16 of this Act against the operator of a nuclear installation or against the person providing insurance to cover such liability shall be extinguished if a claim for compensation has not been made against the operator within three years from the date at which the person suffering damage had knowledge or by observing due diligence ought reasonably to have known both of the fact that he has suffered damage entitling him to compensation under this Act and of the operator liable or, in cases referred to in Section 16, paragraphs 1 and 2, from the date at which the claim for compensation was made against him.

The right to compensation for nuclear damage shall be extinguished if an action is not brought against the operator or his insurer within ten years from the date of the nuclear incident. In the case of nuclear damage caused by a nuclear incident involving nuclear substances which had been stolen, lost or abandoned and had not yet been recovered, no action for compensation may, however, be brought later than twenty years after the date of the theft, loss or abandonment.

In cases where it is necessary in order to comply with the provisions of the Paris Convention, the Government may determine that a person suffering damage shall, on conditions to be prescribed by the Government, retain his right to compensation, notwithstanding that he has not brought an action before a Finnish Court within the period specified in this Section.

Provisions regarding compensation out of public funds in certain cases where the operator has ceased to be liable are laid down in Section 33.

INSURANCE

Section 23

The operator of a nuclear installation situated in Finland is required to take out and maintain insurance to cover his liability for nuclear damage under this Act or the corresponding legislation of another Contracting State up to the amount specified in Section 18. The insurance shall be approved by the Ministry for Social Affairs and Public Health.

Insurance may be taken out either :

- (a) to cover the liability for each nuclear incident that may occur; or
- (b) to cover at any time the nuclear installation by an agreed amount as laid down in Section 24.

Liability for damage arising in the course of carriage of nuclear substances may be covered by a separate insurance.

Section 24

In cases referred to in Section 23 paragraph 2(a) the insurance amount shall be not less than the amount of liability established with respect to the operator pursuant to Section 18 paragraph 1. In cases referred to in Section 23 paragraph 2(b), the insurance amount shall exceed the aforementioned maximum amount of liability, by not less than one-fifth. The amount covered by the insurance policy shall not include any interest or costs awarded by a court.

Where insurance has been taken out in accordance with Section 23 paragraph 2(b) and an insurance contingency occurs which itself or together with one or more earlier contingencies is deemed likely to entail a reduction of the insurance amount below the amount of liability established with respect to the operator, the operator shall without delay take out such supplementary insurance as will bring the insurance amount up to an amount exceeding the said amount of liability by not less than one-fifth.

Section 25

Any person entitled to compensation for nuclear damage shall have a right to bring an action for such compensation directly against the insurer. Except if otherwise provided in the insurance policy, the operator shall thereby be insured against any liability for nuclear damage under this Act or the corresponding legislation of another Contracting State.

Section 26

In the insurance policy is cancelled or otherwise ceases to be valid, the insurer shall nevertheless, in relation to any person suffering damage, continue to be liable to pay compensation in respect of nuclear damage caused by a nuclear incident occurring within two months from the date at which the Ministry for Commerce and Industry has been notified in writing of the time of expiry of the policy. Where the insurance policy covers liability for nuclear damage caused by a nuclear incident occurring in the course of carriage of nuclear substances and such carriage has started before the expiry of the said period, the insurer shall, however, in no case cease to be liable for such damage until the carriage has come to an end.

The provisions of paragraph 1 of this Section shall not apply with respect to nuclear incidents occurring after the day on which a new insurance contract has come into force.

Except as provided in paragraphs 1 and 2 of this Section, the insurer may in no case invoke as a defence against a claim for compensation any circumstances due to a person other than the person suffering the damage.

Section 27

The provisions of Section 25 and 26 shall apply where an action for compensation for nuclear damage under this Act may be brought in Finland and notwithstanding that the law of a foreign State may be applicable to the relationship between the insurer and the operator liable or that the nuclear installation involved is situated outside Finland.

Section 28

The State shall be exempted from the obligation under this Act to take out insurance.

The Government may relieve an operator from the obligation to take out insurance, provided that the operator furnishes adequate financial security to cover his obligations under this Act and under the corresponding legislation of any other Contracting State and shows that he has taken satisfactory measures to ensure the settlement of any claims for compensation.

The provisions of this Act relating to insurance shall apply, mutatis mutandis, to such other financial security as referred to in the preceding paragraph of this Section or the corresponding provisions of the legislation of another Contracting State.

COMPENSATION OUT OF PUBLIC FUNDS

Section 29

If a person who is entitled under this Act or the corresponding legislation of another Contracting State to obtain compensation for nuclear damage from the operator of a nuclear installation situated in Finland shows that he has been unable to recover the compensation due from the operator's insurer, compensation shall be paid by the State.

The total compensation payable under the preceding paragraph of this Section shall not exceed the maximum amount of liability established with respect to the operator pursuant to Section 18 paragraph 1.

Section 30

Where liability for nuclear damage lies with the operator of a nuclear installation, used for peaceful purposes and situated in Finland or in the territory of another State Party to the Supplementary Convention and appearing at the time of the nuclear incident on the list referred to in Article 13 of the Supplementary Convention, and jurisdiction over actions for compensation lies with Finnish courts in accordance with the provisions of Section 36 of this Act, and the amount of liability established pursuant to Sections 18 and 19 is insufficient to satisfy the

claims for compensation due, or the compensation payable has, by virtue of a decision taken under Section 20 paragraph 2, been reduced to a fixed percentage of the full amount due, compensation out of public funds shall be afforded for nuclear damage suffered:

- (a) in Finland or in the territory of another State Party to the Supplementary Convention; or
- (b) on or over the high seas on board a ship or aircraft registered in Finland or in the territory of another State Party to the Supplementary Convention; or
- (c) in any other case on or over the high seas by a State Party to the Supplementary Convention or by a national of such State; provided, however, that compensation shall be payable for damage to a ship or an aircraft only if such ship or aircraft was at the time of the nuclear incident registered in the territory of a State Party to the Supplementary Convention.

By application of the provisions of paragraph 1 of this Section the term "national of a State Party to the Supplementary Convention" shall include any company, whether under public or private law, association or other society, foundation or other similar body, whether corporate or not, established in the territory of such State. Any person who under the law of a State Party to the Supplementary Convention other than Finland is considered to have his habitual residence in that State and in respect of his right to compensation under the Supplementary Convention is under that law assimilated to the nationals of that State shall under this Act be considered to be a national of a State Party to the Supplementary Convention.

Section 31

Compensation out of public funds pursuant to Section 29 shall be fixed in accordance with the principles laid down in Section 12, paragraph 1, Sections 13 and 14 and Section 18 paragraph 2.

The provisions of Section 16 paragraphs 1 and 3 regarding rights of recourse against an operator shall apply, mutatis mutandis, to rights of recourse against the State in respect of any sum paid as compensation for nuclear damage and for which compensation is payable out of public funds under Section 29.

Section 32

The total amount of compensation for nuclear damage, caused by a nuclear incident payable pursuant to Sections 6 - 22, 29 and 31 by one or more operators and the State, and payable pursuant to any such agreement as referred to in Article 15 of the Supplementary Convention, shall not exceed an amount equivalent to one hundred and twenty million units of account referred to in the European Monetary Agreement of 5th August 1955 and as defined on 29th July 1960. The amount shall not include any interest or costs awarded by a court.

If the amount available for compensation out of public funds pursuant to Sections 30 and 31 is not sufficient to satisfy in full the claims for compensation due, the amounts of compensation and any interest accruing thereto shall be reduced proportionally. The provisions of Section 20, paragraph 2 shall apply, mutatis mutandis.

Section 33

If a nuclear incident in respect of which liability lies with the operator of a nuclear installation situated in Finland has caused nuclear damage by way of personal injury in Finland, which has not come to light until after the rights of compensation against the operator have been extinguished pursuant to Section 22 paragraph 2 or the corresponding provisions of the legislation of another Contracting State but within thirty years after the date of the incident, compensation for such damage shall be paid by the State. The State shall also be liable to pay compensation for nuclear damage which has come to light before the rights of compensation have been so extinguished if the person suffering the damage has failed to bring an action against the operator or to take other appropriate measures to preserve his rights within the periods applicable but has had reasonable excuses for not bringing such action or taking such measures.

If compensation has been reduced pursuant to Section 20 paragraph 1 and, whenever applicable, Section 32 paragraph 2 or the corresponding provisions of the legislation of another Contracting State, the compensation payable out of public funds under the present Section shall be reduced accordingly. In other respects, the liability to pay compensation shall be determined as if the operator had been liable for the damage. The right to bring an action for compensation shall be extinguished if a claim for compensation has not been made with the Ministry for Social Affairs and Public Health within the period specified in Section 22 paragraph 1.

The Government may decide that compensation shall, on conditions to be prescribed by the Government, be payable under the present Section in respect of nuclear damage which has occurred outside Finland, but for which an operator of an installation situated in Finland is liable.

Section 34

Compensation pursuant to Section 29 or 30 shall not be payable for nuclear damage caused by such nuclear incidents as referred to in Section 12 paragraph 2.

Section 35

In respect of any sums paid out of public funds pursuant to Section 29 the State shall have a right of recourse only against the operator, his insurer and any person against whom the operator has a right of recourse under Section 21.

In respect of any sums paid out of public funds pursuant to Section 30 the State shall acquire by subrogation the right to obtain compensation from the operator that the person suffering the damage may have. With regard to any other sums paid out by the State pursuant to Sections 30-32 or otherwise paid out in accordance with the provisions of the Supplementary Convention in respect of a nuclear incident giving rise under the law of another Contracting State to the liability of the operator of a nuclear installation situated in Finland, the State shall have a right of recourse only against an individual who has caused the damage by an act or omission done with intent to cause damage. The same provisions shall apply, mutatis mutandis, in respect of compensation paid out by the State pursuant to Section 33.

COMPETENT COURTS AND ENFORCEMENT

Section 36

Actions for compensation due under Sections 6, 7, 8, 9, 10 or 16 against the operator of a nuclear installation or against his insurer shall be brought before Finnish courts, if

- (a) the nuclear incident has occurred wholly or partly in Finland;
or
- (b) the nuclear installation involved is situated in Finland and either the nuclear incident has occurred wholly outside the territory of any Contracting State or the place of the nuclear incident cannot be determined with certainty.

Whenever required in order to comply with the provisions of Article 13(c)(ii) of the Paris Convention the Government may restrict the jurisdictional competence conferred upon Finnish courts under paragraph 1 of this Section.

Section 37

Jurisdiction over actions for compensation in respect of nuclear damage brought before Finnish courts pursuant to Section 36 and over actions for compensation against the State pursuant to Sections 29, 30 or 33 of this Act shall lie with the general court of first instance of the jurisdictional area within which the nuclear incident occurred. Where competence would thus lie with two or more courts, the action may be brought before either of them.

Should there be no competent court under paragraph 1 of this Section, the action shall be brought before the City Court of Helsinki.

Section 38

Where in accordance with the provisions of the Paris Convention jurisdiction over actions for compensation for nuclear damage lies with the courts of another Contracting State, any judgment entered by such court in such action shall, as soon as the judgment has become enforceable under the law of that State, on request be enforceable also in Finland, without the merits of the claim being subject to any further proceedings. This provision shall, however, not entail any obligation to enforce a judgment to the extent that the applicable maximum amount of liability of the operator would thereby be exceeded.

An application for enforcement shall be made before the Helsinki Court of Appeal. The application shall have attached to it:

1. The original judgment or a copy thereof certified by the competent public authority;
2. A declaration issued by the competent public authority of the State where the judgment was entered that the judgment relates to compensation due under the Paris Convention and that it is enforceable in that State; and
3. If the relevant documents are in a language other than Finnish or Swedish, an officially certified translation into Finnish or Swedish shall be attached to the document.

The documents mentioned in paragraph 2(1) and (2) shall contain a certificate concerning the due competence of the person having signed the documents. Such certificate shall be issued by a Finnish Embassy or Consul or by the Minister of Justice of the State concerned.

No application for enforcement shall be granted unless the defendant has had an opportunity to submit his comments on the application.

Where the application is granted, the judgment shall be enforceable in the same manner as a judgment entered by a Finnish court, unless the Supreme Court has decided otherwise upon an appeal.

MISCELLANEOUS PROVISIONS

Section 39

Where nuclear substances are sent from a nuclear installation situated in Finland to a consignee outside Finland or to such installation from a consignor outside Finland and under such circumstances that the operator of the said installation is liable pursuant to Section 7 or 8 for nuclear damage arising in the course of the carriage, the operator shall provide the carrier with a certificate issued by the insurer and stating the name and address of the operator, the nuclear substances and the carriage in respect of which the insurance applies as well as the amount, type and duration of the insurance. The certificate shall include a statement by the Ministry for Commerce and Industry, or by the authority appointed by this Ministry that the operator named therein is

an operator of a nuclear installation within the meaning of the Paris Convention. The person by whom the certificate is issued shall be responsible for the correctness of the certificate as regards the name and address of the operator and the amount, type and duration of the insurance.

The form of certificate to be issued under paragraph 1 of this Section shall be established by the Ministry for Commerce and Industry.

Section 40

Any person who fails to fulfil his obligations under this Act to take out and maintain insurance or to furnish financial security as laid down in Section 28 paragraph 2 shall be liable to fines or to imprisonment not exceeding six months.

Section 41

Provisions for the enforcement and application of this Act may be enacted by Statutory Order.

This Act shall become applicable as determined by Statutory Order upon the existence of the conditions precedent for the bringing into force of the Paris Convention signed on 29th July 1960, and with regard to Sections 30 - 32 of this Act, also for the bringing into force of the Supplementary Convention signed in Brussels on 31st January 1963.