NUCLEAR LAW Bulletin

number 37

Contents

This Bulletin includes a supplement

June 1986

Nuclear Energy Agency
Organisation for Economic Co-operation and Development

Pursuant to article 1 of the Convention signed in Paris on 14th December, 1960, and which came into force on 30th September, 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy,
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development, and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations

The Signatories of the Convention on the OECD are Austria, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States The following countries acceded subsequently to this Convention (the dates are those on which the instruments of accession were deposited) Japan (28th April, 1964), Finland (28th January, 1969), Australia (7th June, 1971) and New Zealand (29th May, 1973)

The Socialist Federal Republic of Yugoslavia takes part in certain work of the OECD (agreement of 28th October, 1961)

The OECD Nuclear Energy Agency (NEA) was established on 20th April 1972 replacing OECD's European Nuclear Energy Agency (ENEA) on the adhesion of Japan as a full Member

NEA now groups all the European Member countries of OECD and Australia Canada Japan and the United States The Commission of the European Communities takes part in the work of the Agency

The primary objectives of NEA are to promote co-operation between its Member governments on the safety and regulatory aspects of nuclear development and on assessing the future role of nuclear energy as a contributor to economic progress

This is achieved by

- *encouraging harmonisation of governments' regulatory policies and practices in the nuclear field with particular reference to the safety of nuclear installations protection of man against ionising radiation and preservation of the environment radioactive waste management and nuclear third party liability and insurance*
- *keeping under review the technical and economic characteristics of nuclear power growth and of the nuclear fuel cycle and assessing demand and supply for the different phases of the nuclear fuel cycle and the potential future contribution of nuclear power to overall energy demand,*
- *developing exchanges of scientific and technical information on nuclear energy, particularly through participation in common services,*
- *setting up international research and development programmes and undertakings jointly organised and operated by OECD countries*

In these and related tasks NEA works in close collaboration with the International Atomic Energy Agency in Vienna with which it has concluded a Co-operation Agreement as well as with other international organisations in the nuclear field

LEGAL NOTICE

The Organisation for Economic Co-operation and Development assumes no liability concerning information published in this Bulletin

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LEGISLATIVE AND REGULATORY ACTIVITIES

• *Australia*

RADIATION PROTECTION

1983 Radiation Ordinance (Australian Capital Territory)

Radiation Ordinance, No. 58 of 1983 provides for the safe use, transportation and disposal of radioactive materials and irradiating apparatus It repeals the Fluoroscopes Ordinance of 1958 Radioactive materials whose radioactivity does not exceed levels as set out in a Schedule to the Ordinance are exempted from application of the Ordinance

The substantive parts of the Ordinance deal with administration, radiation safety, registration of irradiating apparatus, transportation and storage and disposal of radioactive material

The Ordinance establishes a Radiation Council which is a body corporate made up of members of the medical, university, research and public health communities, appointed by the Minister of State for Health Its purpose is to enforce the provisions of the Ordinance and it is charged with the responsibilities set out in the relevant provisions of the Ordinance

The Minister of State for Health also appoints inspectors to ensure compliance with the provisions of the Ordinance For this purpose, inspectors are given broad powers to enter and inspect licensed premises, subject to obtaining a search warrant, and may seize anything which is connected with an offence against the Ordinance The Ordinance also sets out penalties for obstructing an inspector in the course of his duties

The provisions relating to radiation safety require a licence for the sale, lease, manufacture, purchase, possession, or use of radioactive material as well as for irradiating apparatus. The licensing procedure as well as the conditions, duration, and reasons for cancellation of a licence are also described The Radiation Council is responsible for any decision to grant or revoke a licence

Licensees must keep records specifying all radioactive materials and irradiating apparatus in their possession and for those employing radiation workers, records of name, address, dates of employment, and calculations of

ionizing radiation doses received by each worker must be maintained A licensee must also take reasonable steps to ensure that no person receives a radiation dose in excess of the relevant dose equivalent limit and any cases of excessive doses must be reported to the Chairman of the Radiation Council immediately A licensee may appoint a Radiation Safety Officer who is responsible for implementing safety procedures as set out in the Ordinance.

The Ordinance prohibits the use of irradiating apparatus which is not registered in accordance with its provisions Application for the registration of such an apparatus is also made to the Radiation Council which registers it if it is satisfied that the apparatus is suitable for the use proposed and that it is adequately protected The Council then issues a certificate of registration for each item of irradiating apparatus that is registered

The provisions on transportation of radioactive material require the enclosure of the material in a Category I, II or III package and set out the limits on the contents of such packages They also prescribe labelling requirements and the information which must be affixed to all packages

The Ordinance prescribes that a person (other than a licensee) shall not use a place, other than licensed premises or a place approved by the Radiation Council, to store radioactive material The Council shall approve a storage place provided that adequate precautions have been taken to prevent a radiation hazard or access by unauthorised persons to radioactive material stored therein For the disposal of such material, application must be made to the Radiation Council for a permit

The miscellaneous provisions of the Ordinance contain procedures for appeals of a Radiation Council decision, notification procedures, annual report, obligations of the Radiation Council, etc

The Schedules attached to the Ordinance deal respectively with maximum permissible concentrations for radioactive material in air and water, quality factors, maximum activity of exempt radionuclides, maximum levels of radioactive materials in packages, distances of packages from members of the public, and labels

Health (Radiation Safety) Regulations 1984 (Victoria)

The above Regulations (Statutory Rules No 191) were made on 8th May 1984 under the Health Act 1958 of the State of Victoria They repeal the Irradiating Apparatus and Radioactive Substances Regulations 1959

These Regulations govern the uses and transport of sealed and unsealed radioactive sources and irradiating apparatus and provide for a system of licensing, registration and control in their respect The authority competent for issuing licences and notifications for registration of such substances and apparatus is the Health Commission of Victoria The Regulations also lay down the duties of Radiation Safety Officers appointed pursuant to the Health Act 1958 to ensure that all safety precautions under the Regulations are complied with in premises where such substances and apparatus are held The Radiation Safety Officers' duties include provision of advice to registered owners or licensees of radioactive substances on radiation monitoring programmes, and on

actions to be taken to reduce radiation exposures, they are also responsible for preparing safe working procedures for radiation protection, instructing employees in radiation hazards and safe working procedures, assessing accumulated dose equivalents, and finally, for monitoring transport containers and maintaining detailed records of the above operations

Licensing and registration

The Regulations lay down licensing and registration procedures for the use of radioactive sources and irradiating apparatus Models of the application forms are reproduced in the Schedules to the Regulations

Persons using irradiating apparatus, sealed and unsealed radioactive sources must obtain a licence from the Health Commission of Victoria The application for a licence must be accompanied by documents certifying that the applicant has the necessary qualifications to use the substances or operate the apparatus. In addition, the Commission may assort such licences with any conditions it considers necessary from the radiation protection viewpoint Licences must also be obtained for the sale of such apparatus and sources

Irradiating apparatus and sealed radioactive substances as listed in the Regulations must be registered with the Commission in accordance with safety conditions set out in a Schedule to the Regulations

General safety precautions and radiation protection procedures

Persons owning, possessing and controlling irradiating apparatus or sealed and unsealed sources must ensure that such apparatus or sources are not used, stored, transported or disposed of in a way which may expose other persons to radiation in excess of the limits specified in the Regulations They must also ascertain that personnel or visitors on their premises are adequately instructed in radiation hazards and safety practices Loss of or damage to a radioactive source must immediately be reported to the Commission

The dose equivalent limit for radiation workers is 50 millisieverts to the whole body in any period of twelve months The annual dose equivalent limit for persons incidentally exposed to radiation is one-tenth of the limit for radiation workers In addition, persons must wear a personal monitoring device when they are likely to be exposed to radiation.

Also, the Commission may require any person or class of persons likely to be occupationally exposed to a radiation hazard to undergo medical examinations prior to and during their employment

The Commission may furthermore require that inspections be carried out in premises housing irradiating apparatus and sealed or unsealed sources To this effect, a specially authorised officer may inspect such premises and test or seize such apparatus or equipment if he considers it represents a health hazard He may also inspect any relevant documentation and records

Radioactive waste disposal

The Regulations prescribe that it is forbidden to dispose of radioactive waste without ensuring that such disposal will not result in any person receiving more than the annual dose equivalent limits under the Regulations Solid radioactive wastes may only be disposed of in accordance with procedures approved by the Health Commission, or with a condition for a licence or registration imposed by the Commission

Transport

Any transport of radioactive substances, their packaging and storage must be carried out in compliance with the Code of Practice for the Safe Transport of Radioactive Substances 1982 and the International Atomic Energy Agency's Regulations for the Safe Transport of Radioactive Materials 1973, as amended in 1979.

The Commission, which is the competent authority in Victoria for the transport of radioactive substances, may authorise the transport of such substances whose activity is in excess of the limits specified in the Regulations, subject to any conditions it wishes to impose

Exemptions

Any irradiating apparatus, sealed sources or radioactive substances may be excluded from the scope of these Regulations by the Health Commission if it considers them to be without significant radiation hazard In addition, Schedules to the Regulations list the maximum amounts of radioactive substances exempted from these Regulations

Sanctions

Any person failing to comply with the provisions of the Regulations is liable to a fine not exceeding 10,000 Australian dollars

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These Regulations were subsequently amended by the following·

- Health (Radiation Safety)(Amendment) Regulations 1984 (SR 1984 No. 236) These minor amendments simply concern points of drafting

- Health (Radiation Safety)(Amendment) Regulations 1985 (SR 1985 No. 40) The amendments concern, in particular, exemption of fluoroscopy installations and angiography installations from the provisions of the Health Act 1958 and the replacement of Schedule 17 to the Regulations on standards for adequate facilities by a new Schedule,

- Health (Radiation Safety)(Further Amendment) Regulations 1985 (SR 1985 No. 258) The amendments here mainly concern the addition of

further specifications for fluoroscopy installations, etc, and cobalt specifications in Schedule 12 of the Regulations

1984 Code of nursing practice for staff exposed to ionizing radiation (Commonwealth)

This Code, published by the National Health and Medical Research Council and intended for nurses and auxiliary staff provides general guidance on radiation protection It specifies those situations where nurses and staff should seek advice from the Radiation Safety Officer in the hospital The Code is supplementary to radiation control legislation relating to the use of ionizing radiation in medical practice. The principles established by the recommendations of the International Commission on Radiological Protection (ICRP) have been taken into account

The Code lays down measures to be taken to protect against external radiation from radioactive sources, as well as protection against internal irradiation which may result from ingestion, inhalation or absorption of unsealed beta or gamma emitting radioactive material

It also describes general procedures to be adopted in hospital wards in order to minimise radiation risks Recommendations are also made with regard to therapy using radioactive sources and to X-ray procedures requiring nursing assistance

1984 Code of Practice for protection against ionizing radiation emitted from X-ray analysis equipment (Commonwealth)

Appropriate working rules, safety features and monitoring requirements for general X-ray analysis units or equipment is laid down in this Code which is intended for users of such equipment. The Code advises that establishments draw up their own working procedures based on appropriate legislation and on the recommendations contained in this Code. In addition the respective responsibilities of users, operators and Radiation Safety Officers are specified The Code also describes the requirements for X-ray analysis equipment necessary to ensure safety in the use of such equipment in order to avoid exposure to a primary X-ray beam and to ensure that dose rates to which persons may be routinely exposed for long periods are as low as possible

In order to achieve similar standards of safety for each type of X-ray analysis unit, general working rules are also provided therein, as well as radiation monitoring recommendations and medical requirements

The Annexes contain a list of statutory authorities for information regarding radiation control legislation in the different states or territories, and a set of emergency procedures in case of an actual or suspected exposure to a primary beam

• *Belgium*

THIRD PARTY LIABILITY

The Act of 22nd July 1985 on third party liability in the field of nuclear energy, which came into force ten days after its publication in the Belgian Official Gazette (see Nuclear Law Bulletin No 36) is reproduced in the Supplement to this issue of the Bulletin. Also, a commentary of the Act is provided in the "Articles" Chapter

• *Bulgaria*

NUCLEAR LEGISLATION

1985 Atomic Energy Act

The above Act (No 3300) of 7th October 1985 was published in the Official Bulgarian Gazette of 11th October 1985 (No 79, S 953) and governs all the peaceful uses of nuclear energy.

The Act formulates a number of guiding principles the peaceful vocation of the uses of atomic energy in Bulgaria, nuclear materials and equipment are the exclusive property of the State, which may authorise their use by different bodies, the protection of health and life is a fundamental obligation when using such form of energy, its use must conform to the development plan decided by the State

At institutional level, the Act provides for the creation by the Council of Ministers of a State organisation competent for nuclear matters the Committee for the Peaceful Uses of Nuclear Energy The task of this Committee (Chapter II) is to co-ordinate nuclear scientific research and the work of ministries and other undertakings competent in this field It is given a regulatory function as regards nuclear safety and radiation protection The Committee is supported by an Advisory Council for Nuclear Matters and Radiation Safety which is made up of scientists and experts

General security control of nuclear activities is exercised by the Committee by means of inspections, all undertakings using nuclear materials and equipment are subject to control by the Committee's inspectors the Inspectorate for the Safe Use of Nuclear Energy The inspectors enjoy wide powers to carry out the controls prescribed by the Act (Chapter III)

A system of prior licensing is set up for nuclear installations (site selection, construction and operation), fabrication, import, export and

transport of radioactive materials as well as for the use of radioactive sources Licences are issued by the Committee, following examination by the Inspectorate

Chapter IV of the Act deals with third party liability for nuclear damage It provides that any undertaking operating nuclear equipment or holding, transporting or using nuclear equipment is held solely liable for damage resulting from such activities Liability is not limited

Where the undertaking concerned is not able to compensate totally the damage caused, it is provided that the State will intervene to complete compensation This also applies in cases of force majeure Where a victim causes damage intentionally, rights to compensation are forfeited

The prescription period is that fixed by the general law on torts Actions for compensation must be brought before one court the Sofia Trial Court

If an incident causes damage in another State, international law applies, failing an agreement in this field, the rules of reciprocity come into play (Bulgaria has not acceded to the Vienna Convention on Civil Liability for Nuclear Damage)

The Act contains no provisions on mandatory financial security, which may be explained by the fact that exploitation of nuclear energy is a State monopoly

• *Canada*

NUCLEAR LEGISLATION

Proposed amendments to the Atomic Energy Control Regulations (1986)

The Atomic Energy Control Regulations were made under the Atomic Energy Control Act of 12th October 1946 and date back to 1974, with only minor amendments made to the text since then.

The Atomic Energy Control Board (AECB) has now prepared major amendments to the Regulations The proposed amendments have been released for public comment (Consultative Document C-83 of 28th April 1986) The following is an extract from the AECB Communiqué

The proposed amendments reflect the developments in the industry and the regulatory experience gained during that period They also take into consideration developments in administrative law and regulatory reform, as well as comments from Parliament's Standing Joint Committee on Regulations and Other Statutory Instruments. In accordance with government policy, the AECB will conduct a full-scale socio-economic impact analysis of the proposed

general amendments, because they are considered to be a major change to the current AEC Regulations

Included in the proposed general amendments are changes to the radiation protection provisions, which were first published for public comment in November 1983 In view of the extensive comments received on these initial proposals, the AECB decided to incorporate them into the general amendments, with certain changes resulting from the earlier review This will enable interested groups and individuals to submit further comments on these proposals.

Although many of the proposed amendments are meant to consolidate existing requirements that up to now have been laid down as licence conditions, in general the proposals are intended to clarify and elaborate on the application of the regulations and the powers of the Board and its staff They also provide more explicit provisions regarding licensing requirements, licensee and worker responsibilities, obligations relating to international safeguards for the peaceful use of nuclear energy, and appeals to the Board by licensees

In view of the extensive changes being proposed, the public comment period on the proposed general amendments has been set at six months, except for Section 5, which limits the application of the Regulations, and for which the comment period will be the customary 90 days During this six-month period, the proposals will also be examined in the light of the Citizen's Code of Regulatory Fairness

The more significant changes being proposed include

- In addition to matters of "health, safety and security", "international safeguards and the protection of the environment" would be explicitly included in the scope of the Regulations

- The application of the Regulations would be more clearly limited to activities associated with the development, application or use of radioactive materials for their nuclear properties Naturally-occurring radioactive substances that are contained in materials put to other uses would not be subject to the regulations, except for the purpose of import control.

- The requirement for a permit to export radioactive materials would be removed, except for uranium, thorium, plutonium, tritium and deuterium, which must continue to be controlled in accordance with Canada's nuclear export policy Otherwise, the export permit requirement is considered to be unnecessary

- The control over nuclear facilities would explicitly include site preparation, decommissioning and abandonment as formal approval steps, in addition to the current provisions for construction and operating approvals

- Environmental aspects would be dealt with more explicitly and would not be limited to radiation effects

- The regulations would include a provision to control the manufacture of certain components of nuclear reactors

- The directive powers of the Board and its designated officers and inspectors would be clarified, as would be the provisions for suspension, revocation or amendment of licences

- New provisions for emergency orders to licensees would be added

- Safeguards obligations under international agreements to which Canada is a party would be incorporated into the Regulations

- Duties of both licensees and workers relating to health and safety would be expanded and made more explicit

- There would be more and clearer provisions for appeals to the Board by licensees

- A new provision would protect workers from retaliation for carrying out any duties or functions under the regulations

The general amendments also include proposed changes to the current radiation protection provisions These changes were first proposed in November 1983, and certain modifications have been made as a result of public comments received then, and further consideration by the AECB The major changes are

- A number of definitions have been clarified

- The duties of employers with regard to limiting radiation doses in cases of pregnancy would be extended to cover all female workers, including those not designated as atomic radiation workers

- Quarterly dose limits would be retained to limit the rate at which workers may be exposed during a year Only annual limits were included in the earlier proposals.

- Occupational radiation doses from rays or other man-made sources not covered by the current AEC Regulations would now be included when calculating the total dose received by workers

- The measures to be taken in the case of small overexposures would be modified to protect workers who might otherwise be discharged from their job

- The provision to permit radiation doses in excess of the regulatory limits in emergencies would be deleted

In addition to the proposals now published, the revised Atomic Energy Control Regulations will also incorporate the recent amendments dealing with industrial radiography, as well as the separate regulations on physical security, transport packaging of radioactive materials, and uranium and thorium mining Since these parts are fairly recent and have already been subject to public consultation, they are not included in the above proposals

RADIATION PROTECTION

1984 Act amending the Radiation Emitting Devices Act

This Act (Chapter 23) amending the Act of 1970 respecting the sale and importation of certain radiation emitting devices (Revised Statutes of Canada, 1st Supplement, Chapter 34, See Nuclear Law Bulletin No. 11) was published in the Canada Gazette, Part III, Volume 7, No 4, p 723-732 on 28th June 1984

The 1984 Act provides for several significant modifications of the 1970 Act, including the designation of the Minister of National Health and Welfare as the competent authority for implementation of the Act, the expansion of prohibitions against the sale, lease or importation of devices that do not conform to standard, the obligation of notification in case of a non-conforming device and provisions for the disposition of devices seized under the Act

In addition, the definition of radiation emitting devices has been revised to include any component of or accessory to a device that is capable of producing and emitting radiation Such devices, except as authorised by regulations made pursuant to the 1970 Act, may not be sold, leased or imported into Canada if they create a risk of impairment of health or death by the fact that they do not perform according to performance characteristics, do not accomplish their claimed purpose or emit unnecessary radiation. A new section prohibits any person from engaging in false or misleading labelling, packaging or advertising of such devices and makes compliance with the regulations respecting these activities mandatory

Another new section also requires that the Minister be notified by a manufacturer or an importer of any device which has left the premises of the manufacturer or the importer which does not comply to standard or which creates a risk of injury or death. If directed by the Minister, the manufacturer or importer must notify such persons as the Minister may require of the defect or non-compliance

The powers of inspectors to enter premises or places where radiation emitting devices may be kept have been modified to require that where the place to be entered is a dwelling house, the inspector must have a warrant if the occupant refuses entry to the inspector Devices seized in accordance with the Act must be returned within ninety days unless proceedings involving the device have been commenced

The 1984 Act also makes new provisions regarding the disposition of devices with consent of the owner and expands the regulatory powers of the Governor in Council as concerns the Act

The 1984 Act was proclaimed in force on 1st September 1984

1985 Atomic Energy Control Regulations Amendment

The Atomic Energy Control Regulations, 1974, were amended by Order of 9th April 1985 (SOR/85-335). This Order published in the Canada Gazette of 1st May 1985 amends the provisions of the 1974 Regulations regarding atomic radiation workers

The amendments require that every woman who becomes pregnant while engaged as an atomic radiation worker inform her employer as soon as she is aware of her pregnancy. If she is pregnant upon engagement as an atomic radiation worker she must inform her employer immediately The employer who is so informed must then inform any licensee for whom the employee may be working

Table I (item 4) of Schedule II of the Regulations concerning maximum permissible doses to radiation workers has also been amended

• *Denmark*

RADIATION PROTECTION

1982 Order concerning the use of X-ray equipment, etc

Order No 94 of 16th March 1982 on the use of X-ray equipment, etc lays down provisions on safety measures in connection with design, operation, notification and approval of equipment producing X-rays (published in Lovtidende for Kongeriget Danmark, Part A, 21st March 1982)

The Order applies to all equipment emitting X-rays, irrespective of the purpose of the equipment. However, equipment that emits X-rays whose maximum energy does not exceed 5 keV is exempted from the provisions of the Order

The safety measures laid down in this Order are in accordance with the recommendations of the International Commission on Radiological Protection (ICRP)

The National Board of Health is authorised to administer the provisions of the Order and to lay down detailed provisions concerning the design and operation of X-ray equipment, etc

This Order, which came into force on 1st April 1982, repeals Order No. 56 of 17th February 1977 on the use of X-ray equipment (see Nuclear Law Bulletin No 22)

1984 Order on industrial X-ray equipment, etc

Order No 307 of 24th May 1984 on industrial X-ray equipment (published in Lovtidende for Kongeriget Danmark, 1984, Part A, 22nd June 1984) was made in pursuance of the above Order No. 94 of 16th March 1982 and the Council of the European Communities' Directive No. 80/836 Euratom amending the Directives laying down basic safety standards (see Nuclear Law Bulletin No 26)

This Order lays down specific requirements concerning the use of X-ray equipment The National Board of Health must be notified of the installation

of new equipment as well as of changes in existing equipment. In addition, a person with the necessary qualifications must be appointed in charge of any such equipment There are conditions for training staff for X-ray equipment and instructions to be complied with concerning protection during use of the equipment Furthermore, the Order gives instructions regarding the technical design of the equipment and the fitting of X-ray rooms The equipment must be inspected on an annual basis

The Order came into force on 1st July 1984

1984 Order on industrial gamma radiography equipment

Order No 308 of 24th May 1984 on industrial gamma radiography equipment (published in Lovtidende for Kongeriget Danmark, 1984, Part A, 22nd June 1984) was made in pursuance of Order No 574 of 20th November 1975 on the safe use of radioactive substances (see Nuclear Law Bulletin No 17) and the above-mentioned Euratom Directive

This Order, which contains similar provisions to those of the above Order No 307, lays down specific requirements for the use of gamma radiography equipment The authorisation of the National Board of Health is required in connection with the purchase and use of radiography equipment A person with adequate qualifications must be appointed in charge of the radiography equipment Furthermore, the Order lays down requirements for the training of staff for X-ray equipment as well as directives for protection against X-rays in connection with use of the equipment Directives are also given as regards the technical design of radiography equipment The equipment must be inspected on an annual basis

The Order came into force on 1st July 1984

• *Finland*

RADIATION PROTECTION

1986 Act to amend the Radiation Protection Act

The Radiation Protection Act of 26th April 1957 (No 174/57) as amended by the Act of 8th January 1965 (see Nuclear Law Bulletin No 7) has again been amended by an Act of 10th January 1986 (No 15/1986)

This amendment provides that non-ionizing electromagnetic radiation now falls within the scope of the Radiation Protection Act. Any plant or device emitting this type of radiation must be approved by the competent authority before it can be operated or sold However, no safety permit is needed in their respect The authority competent for implementing these regulations will be designated by decree; in all likelihood this will be the Radiation Protection Centre

• *Federal Republic of Germany*

RADIOACTIVE WASTE MANAGEMENT

1986 Amendment of the Atomic Energy Act

Section 9b of the Atomic Energy Act in its version of 15th July 1985 (see Supplement to Nuclear Law Bulletin No 36) has been amended by Section 9 of the First Act to Consolidate the Administrative Procedure Law of 18th February 1986 (Bundesgesetzblatt 1986 II, p. 265) The minor change concerns the land planning procedure for final waste repositories of the Bund The amendment does not result in a material change in the legal situation, it only provides for general harmonisation of the administrative procedure

Model rules for the use of collecting facilities for radioactive waste (1981)

These model rules were prepared within the Federal States Committee (Länder) for nuclear energy - Radiological Protection Sub-Committee - and published as a Circular by the Federal Minister of the Interior of 17th March 1981 (RS II 6 - 515 755/3)

The recommendations by the Committee provide the Länder with a model for the preparation of their own rules while taking into account their special situations and interests Therefore the Länder are free to prepare their rules in the manner they consider appropriate

Adoption of these model rules, however, should encourage harmonisation of regulations in this field and facilitate a central recording of the flow of waste within the Federal Republic of Germany.

The model rules cover, inter alia, the legal bases for the collection of radioactive waste by the Länder competent agencies, notification procedures, acceptance and delivery, transport, technical specifications, radioactive limits, labelling and, finally, documents concerning the wastes, etc

• *Greece*

ORGANISATION AND STRUCTURE

Act on the development of scientific and technological research (1985)

Act No 1514/85 on the development of scientific and technological research entered into force on 8th February 1985 It was published in the

Official Journal the same day. As indicated by its name, this text covers all scientific and technological research in Greece. It also contains provisions directly concerning the organisation of nuclear activities in the country.

These provisions involve the reorganisation of the Hellenic Commission on Atomic Energy as well as that of the Centre for Nuclear Research "Demokritos" The Hellenic Commission on Atomic Energy is reconstituted under the auspices of the Minister of Research and Technology. Its role is now essentially consultative and regulatory The Commission is responsible for radiation protection as well as for the licensing procedure for use of radioactive materials It is also charged with the development and co-ordination of scientific research in this field Preceding texts relating to the statute of the Commission are abrogated.

In addition, replacing the Commission's Centre for Nuclear Research, a new National Centre for Physical Science Research (EKEFE Demokritos) is established with an autonomous statute under the authority of the Minister of Research and Technology Installations, equipment and personnel which had been affected to the Commission's Centre for Nuclear Research are transferred to this new organisation

The relevant provisions of the Act are reproduced in the "Texts" Chapter of this issue of the Bulletin

• *Spain*

ORGANISATION AND STRUCTURE

1986 Act on the development and general co-ordination of scientific and technical research

Act No 13/1986 of 14th April 1986 was published in the Official Journal No 93 on 18th April 1986 Its purpose is to set up new structures in Spain to encourage scientific and technological development

The Act provides for the establishment of a national plan for scientific research and technological development which must be approved by the Government before submission to Parliament The plan will be revised every year.

An Interministerial Commission for Science and Technology will be responsible for the preparation - with possible collaboration from diverse public, scientific and university organisations designated by this Act - of the co-ordination and supervision of the execution of the plan The composition of this commission will be determined by regulation The Centre for Technological and Industrial Development, apart from its official functions, will deal with the commercial exploitation of the plan.

An Advisory Council for Science and Technology will be responsible, in particular, for providing advice to the Commission on the elaboration of the plan and for acting as rapporteur in this field for the commission or for organisations responsible for scientific policy in the autonomous Communities

In order to encourage the co-ordination of research in this area, a General Council for Science and Technology, chaired by the President of the Interministerial Commission and composed of representatives of the autonomous Communities, will be created.

The Junta de Energia Nuclear is one of the public research organisations designated by the Act to collaborate in the implementation of the plan It should be noted that in this respect the Junta will be renamed Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas (Research Centre for Energy, Environment and Technology). This new Centre, as for other research organisations to which the Act applies, will be presided by a person designated by the Government upon proposal by the competent Minister An Executive Council (Consejo Rector) will be set up in accordance with Government directives.

• *Sweden*

THIRD PARTY LIABILITY

Bill to amend the Nuclear Liability Act (1986)

A Bill recently submitted to the Swedish Parliament proposes ratification of the Montreal Protocols No 3 and 4 to amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air (Warsaw Convention). Once adopted, this Bill would entail an amendment of the Nuclear Liability Act of 8th March 1968 (1968 45) as amended (see Supplement to Nuclear Law Bulletin No. 33).

The reason for the amendment envisaged is that the Montreal Protocol No 4 contains no exclusion clause for nuclear damage. It might therefore be argued that it would run contrary to the principles of the Paris and Vienna Conventions on nuclear third party liability for a State to ratify that Protocol, and this question has in fact been discussed within the NEA Group of Governmental Experts Failing a solution to this problem, the Swedish authorities considered it necessary to give priority to the Montreal Protocol, namely, to hold the air carrier liable for any possible nuclear damage, even if this is not strictly in accordance with the provisions of the above-mentioned Conventions (several other countries Parties to the Paris Convention are faced with the same problem).

One way to solve this problem would be to give the air carrier, in the legislation governing nuclear third party liability, a right of recourse

against the operator liable under the nuclear legislation Making the operator bear costs of compensation for damage would comply with the nuclear Conventions' principle that liability be channelled Also, the Warsaw Convention does not prevent a Party liable from seeking to exercise a right of recourse against another party

Therefore it is proposed to amend Section 15(a) of the 1968 Act by inserting an express reference to the 1957 Air Traffic Act (1957 297) to the effect that any person held liable under that Act has a right of recourse against the nuclear operator

• *Switzerland*

NUCLEAR LEGISLATION

Revision of the 1959 Federal Act on the Peaceful Uses of Atomic Energy and Protection against Radiation - Nuclear Energy Bill (1985)

In December 1985 the Federal Council (the Government) decided to submit simultaneously to the Cantons and interested circles a Nuclear Energy Bill as well as a Radiation Protection Bill

The need to revise the present Federal Act of 23rd December 1959 on the peaceful uses of atomic energy and protection against radiation has long been apparent (see Nuclear Law Bulletin No 16). In 1978 the Federal Order concerning this Act had partly revised it in substance (see Nuclear Law Bulletin Nos 22 and 23 - the text of the Order is reproduced in No. 23) Its validity had originally been limited to 31st December 1983 and it was subsequently extended until the end of 1990 at the latest (see Nuclear Law Bulletin No 31). In 1981 a Bill on protection against radiation and the use of nuclear energy was prepared proposing a completely revised text, this Bill, drafted by a Federal Commission of Experts, was submitted for consultation (see Nuclear Law Bulletin Nos 28, 29 and 31). Based on the reactions to the Bill, the Federal Council decided in August 1982 to separate the radiation protection field from that on the uses of nuclear energy and to ask the Departments concerned (Interior and Energy respectively) to prepare two distinct Bills

In the meantime, third party liability questions for nuclear damage were regulated specifically in the Act of 18th March 1983 on nuclear third party liability (the text of the Act is reproduced in the Supplement to Nuclear Law Bulletin No 32)

The Nuclear Energy Bill was prepared by a specialist group from the Administration, set up by the Federal Energy Office. The text proposed is distinct from that on radiation protection (Bill prepared by the Department of the Interior) which would also apply, with certain specific exceptions, to the nuclear field

The Nuclear Energy Bill is based on the Act and the Federal Order in force and it rectifies the most important deficiencies It sets forth the principles of present legislation: the peaceful utilisation of nuclear energy according to private economy rules should remain possible, such utilisation is submitted to strict surveillance by the Federal Police whose rules are fixed more precisely than previously. The division of powers between the Confederation and the Cantons remains unchanged. Some of the amendments proposed are that certain types of low risk installations no longer require a general licence, the latter is still required however for nuclear power plants and final radioactive waste repositories

According to the results of the consultation procedure which will be completed on 30th June 1986, the Government will be in a position to present a Message and a Bill to Parliament

THIRD PARTY LIABILITY

Ordinance on nuclear third party liability (1985)

The Act of 18th March 1983 on Nuclear Third Party Liability (LRCN) provides for the unlimited liability of operators of nuclear installations (see Nuclear Law Bulletin Nos. 31 and 33 - the text of the Act is reproduced in the Supplement to No. 32) Such liability is covered by private insurance up to three hundred million Swiss francs, and beyond that up to one thousand million francs by the Confederation; then, if the damage exceeds that amount, by all the operator's assets, and - if necessary - according to the provisions of the Act concerning settlements for major incidents

According to the Act the Federal Council must increase the minimum amount of three hundred million francs covered by private insurance when the insurance market offers a higher coverage at acceptable conditions The Swiss insurers being in a position to cover the sum of four hundred million francs as from 1st January 1986, the Government accordingly amended on 2nd December 1985 the Ordinance of 5th December 1983 on Nuclear Third Party Liability (ORCN) The Confederation continues to act as an insurer for the difference between this amount and one thousand million francs, contributions due in this respect will be reduced to take account of the greater sum to be covered by private insurance

Several other points of the ORCN were also amended on this occasion, in particular by raising the limits below which the Act is not applicable The new Ordinance entered into force on 1st January 1986

• *Republic of Tanzania*

RADIATION PROTECTION

Protection From Radiation Act 1983

The Protection From Radiation Act of 9th May 1983 (No 5 of 1983) was published in the Gazette of the United Republic of Tanzania, Acts Supplement No. 3 of 13th May 1983.

This framework Act regulates all nuclear activities in Tanzania, in particular, it establishes a National Radiation Commission and details its responsibilities for controlling the uses of radioactive material and radiation protection The Act also sets up a Radiation Protection Advisory Committee as the advisory and executive organ of the Commission for ensuring the establishment, maintenance and operation of a national radiation protection service

In addition, the Act lays down a licensing procedure for nuclear activities and provides for the liability of persons engaged in such activities

Competent authorities

The National Radiation Commission is established under the supervisory authority of the Minister responsible for radiation protection matters The Commission is responsible, inter alia, for

- all matters relating to the use of atomic energy and radioactive materials etc, with a view to ensuring protection of the public and workers against the hazards of ionizing radiation,
- advising and informing the Government on the appropriate use of ionizing radiation and its possible hazardous effects, in the light of currently available knowledge,
- formulating policy on the safe and peaceful uses of nuclear energy and radioactive materials,
- co-operating with organisations in Tanzania and abroad with a view to undertaking research to encourage the use of atomic energy in Tanzania,
- carrying out or promoting applied research with a view to controlling or minimising the effects of ionizing radiation,
- establishing a system, with the advice of the Radiation Protection Advisory Committee, for disseminating information on the peaceful and safe uses of nuclear energy in Tanzania,
- establishing and operating a system for the control of the import, movement and use of nuclear plants, equipment and materials;

- considering applications and granting licences for the import or use of such plants, equipment or other materials,

- maintaining a register of importers, users and operators of such plants, equipment, or other radioactive materials

The composition of the Commission and its rules of procedure are laid down in the First Schedule of the Act. The Commission, whose Chairman is designated by the President of Tanzania, is composed in particular of representatives of different Ministries (eg trade, labour, education, industry) and national agencies (eg science, health, medicine)

The Radiation Protection Advisory Committee is responsible for advising the Commission on the appropriate measures to be taken for ensuring the safety of workers and the public in the field of radiation and radioactive waste disposal. It also gives its advice on the recruitment, employment and maintenance of radiation protection staff, whose duties are to ensure compliance with the provisions of this Act by persons engaged in activities within its scope Finally, the Committee provides its advice on all technical questions and initiates studies and investigations on the safe use and disposal of radionuclides and devices producing ionizing radiation Its composition is set out in the Second Schedule (scientists, engineers, medical practitioners, radiation protection specialists)

Radiation protection

The Radiation Protection Service established by the Advisory Committee is, in particular, responsible for:

- inspecting with qualified radiation protection personnel, premises where radioactive substances or radiation-emitting equipment are used and where radioactive waste is stored,

- maintaining a radiation dosimetry service for keeping records of individual radiation exposure measurements,

- determining the extent of the exposure to ionizing radiation of the public generally and, more particularly, of students and military officers and persons employed in teaching and medical establishments

Persons engaged in the use of radiation must, following consultation with the Advisory Committee, appoint a qualified expert as a Safety Officer who will be responsible for radiation protection matters

Licensing and control

Persons wishing to install plants for the production of atomic energy, facilities for emitting ionizing radiation, for storing or disposing of nuclear fuel or radioactive waste must be registered with the Commission

All persons or organisations using radioactive materials or operating radiation-emitting equipment must also be registered with the Commission The Minister responsible for radiation protection matters will make regulations regarding the procedure to be complied with for registration

In addition, the use and import of any materials, installations or equipment intended to be used as a source of ionizing radiation or for the production of atomic energy are subject to a licence granted by the Commission Licence applications must be made on prescribed forms and in accordance with such conditions as may be required by the Minister

Persons engaged in nuclear activities must also obtain a permit from the Commission to store or dispose of radioactive waste This permit is subject to the Minister's consent

Liability

Licensees under the Act are responsible for ensuring that no harm to persons or damage to property will result from ionizing radiation emitted during their activities, and are held absolutely liable for any such harm or damage The Act provides that the Minister responsible for radiation protection matters shall take measures to ensure that persons engaged in the use of ionizing radiation will cover their liability by insurance or other financial security.

Licensees are exonerated from their liability for damage in cases of armed conflict and in cases where patients undergoing radiation treatment are injured while such treatment is carried out under the supervision of an approved medical practitioner

Financing

The Act establishes a National Radiation Protection Fund consisting of sums to be provided by Parliament for the purposes of the Commission as well as donations or grants and fees charged by the Commission for services rendered This Fund has been set up to meet the operating expenses of the Commission

Exemptions

Exemptions from registration or licensing are provided in respect of the use of radioactive materials or radiation-emitting equipment whose radioactivity does not exceed a certain prescribed level

Sanctions

Offences under the Act are liable to fines ranging from 7,000 to 100,000 shillings and/or imprisonment from six months to five years according to the severity of the offence

• *United Kingdom*

ORGANISATION AND STRUCTURE

Atomic Energy Authority Act 1986

The Atomic Energy Authority Act 1986 was passed on 19th February 1986 and entered into force on 1st April 1986. It is a modest measure concerned principally with the financial organisation of the United Kingdom Atomic Energy Authority (UKAEA).

The Authority will be organised financially on the basis of a trading fund (ie it may now keep its accounts as if it were a commercial company) The opportunity was taken to remove a doubt about certain of the Authority's powers, and it may now borrow such sums as may be required to finance its capital expenditure programme with the consent of the Secretary of State for Energy or a general authority given by him. As from 1st April 1986 the Authority's net assets are reconstituted in the form of a debt to the Secretary of State for Energy, of such amount to be determined by him, in consultation with the Authority, subject to approval by the Treasury Power is given for the Government to guarantee the Authority's borrowing

• *United States*

RADIATION PROTECTION

Proposed revisions to NRC standards for protection against radiation (1986)

On 9th January 1986 the Nuclear Regulatory Commission (NRC) published a proposed major revision to its radiation protection standards in 10 CFR Part 20 (51 FR 1092). Those regulations provide the requirements for the protection of individuals, both in and outside of the workplace, who are exposed to ionizing radiation from normal operations of NRC-licensed activities The revisions are intended to improve NRC standards by reflecting developments in the underlying principles of radiation protection and advances in related sciences that have occurred since the rules were promulgated nearly thirty years ago. In particular, the revisions would put into practice many of the recommendations of the International Commission on Radiological Protection (ICRP) set forth in ICRP Publications 26, 30 and 32. The ICRP system is based on limiting the effective whole body dose and, thus, the estimated risk of health damage This is a major departure from the premises of the present Part 20, which is based on the concept of protecting the single critical organ

The revisions would result in an improved rule that provides better assurance of protection and establishes a clear health protection basis for limits and other regulatory actions taken to protect public health. It would apply to all licensees in a consistent manner and reflect current information on health risk, dosimetry and radiation protection practices and experiences. The Commission sought public comments on the proposed revision until 12th May 1986

REGIME OF RADIOACTIVE MATERIALS

Limitations on the use of highly enriched uranium fuel (1986)

On 25th February 1986 the Nuclear Regulatory Commission (NRC) published a final rule limiting the use of highly enriched uranium (HEU) fuel in domestically licensed research and test reactors. The rule generally would require that newly licensed non-power reactors use low enriched uranium (LEU) fuel It would also require, contingent on Federal Government funding for the costs of conversion, that licensees of existing non-power reactors replace HEU fuel with LEU fuel acceptable to the Commission.

The amendments are intended to promote the common defence and security by reducing the risk of theft or diversion of HEU fuel used in non-power reactors. The Commission hopes to encourage similar action by operators of non-power reactors in other countries, thereby reducing the amount of HEU fuel in international use

RADIOACTIVE WASTE MANAGEMENT

Amendment of the Low-Level Radioactive Waste Policy Act (1985)

On 15th January 1986, the President of the United States signed into law the Low-Level Radioactive Waste Policy Amendments Act of 1985 (see Nuclear Law Bulletin No 27) This Act which completely replaces the Low-Level Radioactive Waste Policy Act of 1980 has forestalled a threatened shut down of three operating low-level radioactive waste disposal sites in January 1986 The new legislation divides responsibility for disposing of low-level waste between the federal and state governments, the Federal government (the Department of Energy - DOE) is required to dispose of various defence-related wastes, as well as those that exceed the limits established by the NRC for Class C radioactive waste The Department of Energy is required to prepare a report on this last question.

The Act grants congressional consent to seven regional interstate compacts for low level waste disposal A State that has not enacted legislation either to join an interstate waste disposal compact or to indicate its intent to develop its own site for a low level waste disposal facility may be denied access to the existing disposal sites in January 1987 The Act also contains later milestones which the non-member States and non-sited compact regions must meet in order to have continued access to existing disposal sites The volume of waste that may be disposed of at existing sites is limited, as

is the volume allocated to commercial nuclear power reactors Surcharges may be imposed for disposal of low level radioactive waste not generated in a sited compact region, and financial penalties may be assessed against waste generators if a State fails to comply with the milestones in the Act

States or compact regions may refuse to accept low level waste above Class C concentrations in NRC regulations (10 CFR 61 55) DOE is responsible for the disposal of such waste in an NRC-licensed facility NRC must determine the need for emergency access to low level waste disposal sites if States or low level waste generators are denied access. NRC is also directed to develop guidance for alternatives to shallow land burial, as well as procedures and criteria for responding to requests to exempt specific waste streams from the regulations on the ground that they are below regulatory concern

Proposed national standards for radon-222 emissions from mill tailings (1986)

On 21st February 1986, the United States' Environmental Protection Agency (EPA) published a proposed rule that would establish national standards for radon-222 emissions from licensed uranium mill tailings during the operational period of a mill (51 FR 6039) EPA regulates radionuclides as hazardous air pollutants under the Clean Air Act Existing EPA standards for radon-222 govern emissions from mill tailings after closure of the facility (40 CFR Part 192, 40 FR 45926, 7th October 1983) and from underground uranium mines (40 CFR Part 61, 50 FR 15386; 17th April 1985) The proposed rule considers alternative work practice standards for limiting these emissions, because the EPA has determined that it is not feasible to prescribe an emission standard as such.

The proposed work practices include improved methods for disposal for newly generated tailings, various timing requirements for use of these improved methods, and interim covers. The improved methods of disposal are a large single pile with immediate closure, phased disposal and continuous disposal involving dewatering and covering of tailings In addition, EPA is considering allowing new tailings to be added to existing piles over a range of times The EPA is proposing multiple alternatives for public comment in order to maximize the information available for making a final decision

• *Uruguay*

NUCLEAR LEGISLATION

1984 Decree regulating the use and applications of radioactive materials and ionizing radiation on the national territory

Decree No 519/984 by the Executive (President of the Republic acting in the Council of Ministers) and dated 21st November 1984 was published in the Official Gazette of Uruguay on 16th May 1985 (No. 21938) It includes five

chapters dealing with the following purpose and scope, radiological protection and safety, specific licences, inspection, violations and penalties

The Decree contains the basic regulations for the use and applications of radioactive substances and ionizing radiation with a view to protecting the health and safety of persons and the environment, as well as ensuring the physical protection of installations, this purpose is achieved by applying standards derived from the recommendations of international organisations competent in those fields

The National Atomic Energy Commission is the competent authority in Uruguay for securing implementation of the provisions of the Decree, to this effect, it is empowered to make the regulations and decisions required regarding the activities covered by the Decree and may also control them It is also the appropriate licensing authority

The Decree lays down the general principles underlying the different implementing regulations to be made by the National Atomic Energy Commission and formulates the basic standards for all activities connected with nuclear installations and with the use and applications of radioactive materials and ionizing radiation generally

The Decree also contains the basic standards applicable to the licensing of any activity related to nuclear energy which concerns development, production, possession, use, transfer, transport, import and disposal of radioactive materials or radiation emitting equipment, as well as the licensing of site selection, design, construction, commissioning, operation, maintenance and final closure of installations or laboratories using radioactive materials or radiation emitting equipment

At present the National Atomic Energy Commission is drafting the technical regulations required in implementation of this Decree

TRANSPORT OF RADIOACTIVE MATERIALS

1985 Decree on the transport of dangerous goods

On 25th April 1985 the Executive adopted Decree No. 158/985 (published in the Official Gazette of Uruguay No 22001 of 19th August 1985) which approves the Regulations on the transport of dangerous goods. The latter are defined as any cargo, packaged or in bulk which conforms to the classification adopted by the International Maritime Dangerous Goods Code of the International Maritime Organisation (IMO).

The main purpose of these Regulations is to implement the standards elaborated by IMO in this field as regards classification, labelling, storage and separation of dangerous goods and drafting of technical information on such goods

The Regulations refer to implementation of the safety provisions set at international level for the transport and handling of dangerous goods as well as to more specific provisions concerning the special requirements for Montevideo, Uruguay's principal port

The Decree covers maritime transport. It applies to any vessel used for the transport of dangerous goods on waters within the jurisdiction of Uruguay, in accordance with the provisions of IMP (Informacion Maritima Publicada) and the International Convention on the Safety of Life at Sea (SOLAS Convention), dated 17th October 1968 and 17th April 1979 respectively, to which Uruguay is a Contracting Party. The Decree also applies to any loading, unloading and removal of dangerous goods in the port of Montevideo

It should be noted that in accordance with the classification of dangerous goods on the basis of the IMO Code, the Decree includes radioactive substances in Class 7, its provisions regulate the transport of such substances in the same way as other dangerous goods covered by the Decree (obligations, responsibilities, safety measures, etc), Chapter 4, Part 7 of the Decree deals with specific measures for radioactive substances

These measures concern, in particular, the obligations to be complied with by persons responsible for transport of radioactive substances, including loading, unloading and storage operations as well as packaging, on the basis of international safety standards and recommendations In addition to the declaration to be made in accordance with the general provisions, a certificate must be prepared stating that the goods conform to their designation and comply with regulatory specifications. This certificate must be dated and recorded by the competent authority, namely the National Atomic Energy Commission under the powers granted to it by Decree No 519/984 of 21st November 1984 (Sections 2, 6, 7 and 16) (see above)

In addition to the safety measures prescribed by this Decree, it is provided that the relevant provisions of the IMO Code concerning transport of goods corresponding to Class 7 are also applicable

CASE LAW AND ADMINISTRATIVE DECISIONS

CASE LAW

• *Canada*

FEDERAL COURT UPHOLDS TWO DECISIONS CONCERNING THE LICENSING BY THE AECB OF A NUCLEAR GENERATING STATION (1984)

The appellant, Energy Probe, requested the Canadian Federal Court of Appeal to review two orders of the Trial Division, dated 9th April 1984, the first dismissing the appellant's motion for a writ of certiorari and in the alternative, for a declaratory judgment and the second, adding the Attorney-General of Canada as an intervener in the action

Facts

In June 1983, the Atomic Energy Control Board (AECB) approved in principle, the renewal of the operating licence for Pickering "B" Nuclear Generating Station, Unit 5 and the issuance of a new licence for Unit 6, both units owned and operated by Ontario Hydro

Energy Probe, a non-profit corporation which conducts research and promotes public education in energy related matters, requested the AECB to suspend its decision approving the licensing of Units 5 and 6 on the basis that a part-time member of the AECB, who was present at the meeting when the decision was taken, had a conflict of interest due to his position as head of a company having contractual relations with Ontario Hydro. On 20th September 1983 the AECB refused this request concluding that there was no conflict of interest and confirming its previous decision to issue the licences.

Trial Division

Energy Probe brought an action in the Trial Division of the Federal Court of Canada moving for a writ of certiorari to quash the AECB decision and

in the alternative seeking a declaratory judgment that the licensing decision was invalid (T-2807-83).

The Trial Division first ruled on a motion (opposed by Energy Probe) which had been brought by the Attorney-General of Canada to be added as a party to the original action (T-2808-83). The Court ruled in favour of the Attorney-General and granted him permission to intervene since a decision in this case would affect the general interest of the public as well as that of the country (the Crown)

The Trial Division, ruling on the issue brought by the respondants that Energy Probe did not have standing to challenge the AECB's decision, found that the serious nature of the group and the fact that it had made representations to the AECB with respect to its decision would justify the exercise of the Court's discretion to grant the applicant standing

The Court nevertheless ruled that the applicant had failed to prove that the AECB member had a pecuniary interest in the outcome of the challenged decision sufficient to constitute direct pecuniary bias, as defined in Canadian jurisprudence. The AECB member had in the past sold radioactive resistant cables to Ontario Hydro for that power plant and could be expected to have business dealings with them again in the future The Court held that this kind of contingent expectation did not constitute direct pecuniary bias The Court was of the opinion that the interest of the AECB member seemed to be of the kind that falls within the jurisprudence dealing with "reasonable apprehension of bias" Since this issue was not raised by the applicant, the Court dismissed both the application for a writ of certiorari and the action for a declaratory judgment.

Appeal Court

Energy Probe attacked the decision of the Trial Division on a twofold basis (A-561-84) The Appellant submitted that the Trial Judge erred in law in holding that there was no pecuniary bias on the part of the AECB member In the alternative, the appellant also claimed that the Trial Judge erred in law in concluding that reasonable apprehension of bias was the real issue and that the Court should have therefore called for argument on this issue before making its decision.

The Appeal Court rejected both these claims on 29th October 1984 - agreeing with the Trial Judge - that the facts as established did not constitute direct pecuniary bias and that the question of reasonable apprehension of bias not being in issue before the Court, there was no requirement that the Trial Judge put the matter in issue

Appellant's counsel submitted, however, that the normal legal consequence of a finding of bias because of interest sufficient to disqualify is that the decision will be quashed because a biased decision is made without jurisdiction He submitted that this is the case whether the bias was actual, pecuniary, or where there was a reasonable apprehension of bias On this basis, it was his view that his failure initially to raise the issue of reasonable apprehension of bias could not create jurisdiction where the administrative tribunal (in this case the AECB) had lost or exceeded its jurisdiction The Appeal Court did not agree with the Appellant that an administrative tribunal loses jurisdiction where the ground of challenge is only reasonable

apprehension of bias In any event, the matter of reasonable apprehension of bias was not addressed by the parties and the Trial Court was correct in refusing to hear argument on this

The Appeal Court also upheld the Trial Court decision to add the Attorney-General as a party in the action and accordingly dismissed this appeal as well (A-562-84)

Following this decision, Energy Probe attempted to have its appeal heard by the Supreme Court of Canada but was unsuccessful.

• *Switzerland*

ESTABLISHMENT OF A RADIOACTIVE WASTE REPOSITORY (PREPARATORY MEASURES)

In 1980, the National Corporation for Disposal of Radioactive Waste (CEDRA) lodged twelve licence applications for preparatory measures to enable identification of suitable sites on which a radioactive waste repository might be established The applications related to a programme of research deep underground intended to supplement geological findings concerning the Northern Swiss Plateau and the Jura. One of the applications concerned land in the commune of Siblingen, in the canton of Schaffhausen. On 17th February 1982, the Federal Council (the Government) granted CEDRA the licence requested for the commune of Siblingen.

In June 1982, CEDRA lodged an application with the commune for a construction licence for a drilling facility The point at issue in the construction licensing procedure was whether, under town and country planning law, CEDRA needed such a licence and, in particular, given that the site was not situated within the commune's construction zone, whether a special (exceptional) licence, as defined in the Federal Town and Country Planning Act of 22nd June 1979, was required

Following the refusal by the canton of Schaffhausen to grant the special licence (see below), CEDRA appealed to the Schaffhausen Cantonal Court which held that a special licence was not necessary, and gave no judgment as to the substance CEDRA then lodged an appeal under administrative law with the Federal (Supreme) Court which, on 24th April 1985, overruled the decision of the Cantonal Court, and referred the case back to it for consideration of the question whether a special licence could be granted to CEDRA at Siblingen

The Federal Court began by reiterating its case law the Confederation is responsible for legislating on all aspects of atomic energy (Article 24 quinquies of the Constitution) In matters governed by federal law on nuclear installations, the cantons no longer have any legislative powers Cantons therefore have no power to prohibit the construction or operation of a nuclear installation in order to protect interests the protection of which is taken into account in the federal licensing procedure or

which are not, in law, key factors A distinction must, on the other hand, be made between questions governed exclusively by federal law and those powers which, in any event, fall to the cantons, especially decisions relating to interests involved in town and country planning, the supervision of building and the protection of water In any case, Section 4(3) of the 1959 Atomic Energy Act expressly confirms the supervisory powers of both the Confederation and the cantons This confirmation applies equally to cantonal planning powers within their jurisdiction. The Federal Court therefore held that no licence may be given for any project unless it is in conformity with the zoning attribution, within the meaning of Section 22 of the Town and Country Planning Act, of the area in question, or unless a special (exceptional) licence, within the meaning of Section 24 of the Act, may be granted

The Federal Court then considered the Federal Order of 6th October 1978 supplementing the Atomic Energy Act. This Order laid down the nuclear licensing procedure, and introduced general licences which are granted for nuclear reactors only if safe long-term disposal as well as final storage of the radioactive waste from the reactor are guaranteed The Order also provides that the person producing radioactive waste is responsible for ensuring its disposal Referring to the drafting of the Order, the Federal Court showed that the Order had not changed the division of powers between Confederation and cantons, and that in the matter of radioactive waste repositories, which are atomic installations within the meaning of the Act, cantonal planning procedures had also to be complied with Such repositories thus require, in addition to the federal licence under atomic law, a licence from the canton or commune in the context of authority for building and local development

The Federal Court reiterated, however, that questions on which a final decision was made during the federal licensing procedure cannot be raised again in the cantonal procedure, this latter must not be used as an instrument for blocking the building of atomic installations For that reason, held the Federal Court, a popular vote not to allow an atomic installation on a given site can, in the absence of material reasons involving, in particular, the supervision of local construction and planning, be given no weight whatsoever in a cantonal licensing procedure, such a popular vote is manifestly contrary to federal law which clearly recognises the existence of a public interest in radioactive waste repositories The Federal Court was here referring to the vote in 1983 by Schaffhausen residents in favour of the popular initiative requiring the cantonal authorities to use all legal and political means to prevent the building of any radioactive waste repository and any preparatory measures within the canton It may be noted in this respect that several Swiss cantons must, when consulted about nuclear installations, organise a referendum which determines the canton's policy on the subject

In the absence of any provision to the contrary in the Federal Order, the Federal Court considered that preparatory measures for establishing a radioactive waste repository should be judged on the same basis as the actual repository itself The Federal Order provides simply that authority to proceed with preparatory measures must be granted by the Federal Council (Government) under a special procedure. The fact that the authorities may, if necessary, as provided for also under the Order, give third parties a right of compulsory purchase in order to carry through preparatory measures does not, according to the Federal Court, affect the situation in any way The High Court noted, however, that when providing for this possibility, the legisla-

ture stressed that preparatory measures for establishing a repository were in the Confederation's interest, and that a decision in favour of interests opposed to such measures should not be taken lightly.

The Federal Court thus concluded that preparatory measures could, in appropriate cases, require a special (exceptional) licensing procedure within the meaning of the Town and Country Planning Act. It noted, in passing, reiterating a point made by the Federal Energy Office, that, at most, the CEDRA research programme will only give rise to a finding of suitability at regional level, it being possible that a site within the region other than Siblingen could also be found to be appropriate It cannot, therefore, be excluded that the weight of the interests relevant to the question of a possible exception within the meaning of the Town and Country Planning Act will make it appear that a site other than those chosen to date would be more suitable

ADMINISTRATIVE DECISIONS

• *Switzerland*

INCREASE IN NOMINAL THERMAL POWER OF GOSGEN NUCLEAR POWER PLANT (1985)

On 16th December 1985, the Federal Council (the Government) authorised the Company operating the Gösgen-Däniken nuclear power plant to increase the plant's nominal thermal power from 2808 to 3002 MW. This is a licence to modify an atomic installation within the meaning of Section 4 of the Atomic Energy Act This licence has been granted on condition that the increase be effected in stages, each requiring a permit from the Principal Nuclear Safety Division (DSN) This approximately 7 per cent increase concerns the capacity of the turbine-driven generator (5 per cent) and the supply of heat to third parties (2 per cent) The present components and system are adequate and there is no need to modify the installation

The Company's application was published and then submitted for inquiry with the file for thirty days No objections were lodged The Canton of Solothurn (Soleure), where the plant is located, was consulted and raised no objection.

In their expert reports, the DSN and the Federal Commission for the Safety of Nuclear Installations (CSA) concluded that the plant could supply the extra power without derogating from present safety criteria or endangering its environment According to the Swiss Meteorological Institute, the plume of smoke from the cooling tower will persist for only a slightly longer time

INTERNATIONAL ORGANISATIONS AND AGREEMENTS

INTERNATIONAL ORGANISATIONS

• *The OECD Nuclear Energy Agency*

MEETING OF THE COMMITTEE ON THE SAFETY OF NUCLEAR INSTALLATIONS FOLLOWING THE CHERNOBYL ACCIDENT

On 9th May 1986, the NEA Committee on the Safety of Nuclear Installations held a special meeting, with participation by radiological protection experts from Member countries, to examine the impact of the Chernobyl reactor accident in OECD countries. The Committee noted that the reactor which experienced the accident in the USSR was substantially different from those licensable in OECD countries that meet existing safety standards Also, it considered that the implications must be kept under continuous review, however on the basis of currently available knowledge of the accident, the Committee estimated that no immediate action was required concerning the safety aspects of the construction or operation of nuclear power plants in these countries

For light-water power reactors, phenomena which could lead to accidents resulting in reactor core damage have been studied for many years in OECD countries. Following the Three Mile Island accident seven years ago, these studies were reinforced and they have resulted in a better understanding especially of the capability of reactor containments and other barriers to limit the consequences of such accidents and in improved guidance for the management of such events The OECD countries are prepared to share their knowledge actively with respect to severe reactor accidents

The Committee underlined the long-standing and close co-operation prevailing among OECD Member countries in all questions of safety technology and in the analyses of operating experience. The Committee went on to recommend that this type of co-operation is required in the nuclear day and age and should serve as an example In this respect, the Committee welcomed the statement at the recent summit in Tokyo concerning the importance of international co-operation in nuclear safety (see IAEA)

The Committee also heard reports from different OECD countries about their radiological measurements following the accident Based on the data available and the measurements taken in various OECD countries, and also according to a recent statement by the World Health Organisation, it may be concluded that, at this point, the accident has caused no significant risk to public health in any OECD countries, in comparison to other health risks However, a more thorough and comprehensive investigation is planned at a later stage when more data are available for analysis, and in full co-operation with other interested international organisations

The relevant specialised committees of the Nuclear Energy Agency - the Committee on the Safety of Nuclear Installations and the Committee on Radiation Protection and Public Health - will further review this event in order to determine whether additional co-operative actions might be required For example, it was suggested by some countries that an international early information system and data communication between OECD countries could be set up to provide a better basis for prompt action in case of a nuclear accident, if a worldwide system cannot be promptly established.

• *International Atomic Energy Agency*

TOKYO SUMMIT DECLARATION ON THE IMPLICATIONS OF THE CHERNOBYL NUCLEAR ACCIDENT

The text of the statement on 5th May 1986 by the Head of State or Government of seven major industrial nations and the Representatives of the European Community, was circulated by the IAEA to all Member States at the request of Japan [INFCIRC/333] It is reproduced here below.

1. We, the Heads of State or Government of seven major industrial nations and the Representatives of the European Community, have discussed the implications of the accident at the Chernobyl Nuclear Power Station We express our deep sympathy for those affected We remain ready to extend assistance, in particular medical and technical, as and when requested

2 Nuclear power is and, properly managed, will continue to be an increasingly widely used source of energy For each country the maintenance of safety and security is an international responsibility, and each country engaged in nuclear power generation bears full responsibility for the safety of the design, manufacture, operation and maintenance of its installations Each of our countries meets exacting standards Each country, furthermore, is responsible for prompt provision of detailed and complete information on nuclear emergencies and accidents, in particular those with potential transboundary consequences Each of our countries accepts that responsibility, and we urge the Government of the Soviet Union, which did not do so in the case of Chernobyl, to provide urgently such information, as our and other countries have requested

3 We note with satisfaction the Soviet Union's willingness to undertake discussions this week with the Director General of the International Atomic Energy Agency (IAEA) We expect that these discussions will lead to the Soviet Union's participation in the desired post-accident analysis

4 We welcome and encourage the work of the IAEA in seeking to improve international co-operation on the safety of nuclear installations, the handling of nuclear accidents and their consequences, and the provision of mutual emergency assistance Moving forward from the relevant IAEA guidelines, we urge the early elaboration of an international convention committing the Parties to report and exchange information in the event of nuclear emergencies or accidents This should be done with the least possible delay

ADVISORY SERVICES IN NUCLEAR LEGISLATION

Under its Technical Co-operation Programme, the IAEA provided advisory services in nuclear legislation to the Governments of Gabon and Morocco in January and February 1986, respectively In Gabon, such assistance was aimed at the framing of an atomic energy development control act and regulations for radiation protection, in particular with regard to the mining and milling of radioactive ores In Morocco, two draft decrees concerning radiation protection and the licensing and control of nuclear installations respectively, and a draft law on nuclear third party liability were elaborated for consideration by the national authorities. Morocco signed the Vienna Convention on Civil Liability for Nuclear Damage on 30th November 1984

REGIONAL OVERVIEW COURSE ON REGULATORY ASPECTS OF RADIATION AND NUCLEAR SAFETY

In co-operation with the Atomic Energy Licensing Board of Malaysia, the IAEA organised in Kuala Lumpur from 21st to 26th April 1986 a Regional Overview Course on Regulatory Aspects of Radiation and Nuclear Safety for Member States in Asia and the Far East A total of forty participants attended the Course Twenty from the Host country and twenty from abroad Invited lecturers came from Canada, France, the Federal Republic of Germany, India, the Republic of Korea, Spain, the United States of America and the British Insurance (Atomic Energy) Committee

The purpose of the Course was to provide an overview of regulatory issues involved in radiation protection and nuclear safety, extending from regulatory preparations to enforcement of applicable regulations, including manpower requirements and development for regulatory activities Draft regulations based on the Basic Safety Standards for Radiation Protection of 1982, jointly sponsored by the IAEA, the International Labour Organisation, the OECD/NEA and the World Health Organisation (see Nuclear Law Bulletin No 28), as well as draft regulations following the IAEA recommendations on the Physical Protection of Nuclear Material were made available to the participants in the Course to serve as advisory materials for regulatory purposes

• *Euratom*

COMMUNICATION BY THE COMMISSION CONCERNING THE RADIATION PROTECTION DIRECTIVES (1985)

The Commission of the European Communities published in Official Gazette No 347 of 31st December 1985 a communication concerning the implementation of Council Directive 80/836/EURATOM of 15th July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation and Directive 84/467/EURATOM of 3rd September 1984 which modified Directive 80/836/EURATOM [85/C 347/03] (see Nuclear Law Bulletin Nos 26 and 34).

In order to facilitate implementation of the Directives by Member States, the Commission found it useful to formulate general observations and comments on different Articles in the Council Directive of 15th July 1980 which gave rise to particular problems The experts referred to in Article 31 of the EURATOM Treaty gave a favourable opinion concerning the communication

REORGANISATION OF THE JOINT RESEARCH CENTRE (1985)

By a decision of 20th November 1985 (85/593/EURATOM - published in the Official Journal of the European Communities No. L373 of 31st December 1985), the Commission of the European Communities reorganised the Joint Research Centre - JRC (see Nuclear Law Bulletin No 7) The JRC is placed under the authority of a Director-General appointed by the Commission on the basis of a contract of not more than four year's duration which is renewable The directing bodies of the JRC are the following

- the Director-General who is also the Deputy Director-General of the General Directorate for Science, Research and Development,
- the Board of Governors,
- the Scientific Council,
- the Scientific Committee

The Board of Governors and the Scientific Council are made up of representatives of Member States, while two-thirds of the Scientific Committee is composed of the heads of departments and projects and the remaining third, of representatives of scientific and technical personnel elected by that personnel The Director-General of the JRC, having due regard to the general policy adopted by the Commission and the European Parliament and to the general guidelines issued by the Commission, prepares the draft programmes for the JRC's various fields of activity, under the responsibility of the Director-General for Science, Research and Development and in close consultation with the Directorates for Science and Technology, Co-operation with Non-member countries, COST (scientific and technical co-operation) and Means of Action

• *Argentina–Brazil*

JOINT NUCLEAR POLICY STATEMENT (1985)

On 30th November 1985, the President of the Republic of Argentina and the President of the Federative Republic of Brazil jointly made public this statement at Foz de Ignazu.

The statement notes that both countries have for many years been studying the peaceful uses of nuclear energy and that bilateral co-operation would be a means to increase the benefits to be derived for each country Also referring to the increasing difficulties in obtaining at international level supplies of nuclear equipment and materials, and expressing the wish that such co-operation be widened to include all interested countries in Latin America, both Presidents reaffirmed their commitment to develop nuclear energy for exclusively peaceful purposes and their intention to co-operate closely in all sectors of nuclear energy.

Concretely, the statement sets out the decision to create a joint working group under the responsibility of the Chancelleries of both countries. The Group will include representatives of the national Atomic Energy Commission and nuclear firms who will work together to enhance the relations between the two nations, promote the evoution of their nuclear technology and create mechanisms to secure peace, safety and development of the region

• *Australia-Switzerland*

AGREEMENT FOR CO-OPERATION IN THE NUCLEAR FIELD (1986)

An Agreement for Nuclear Co-operation between Switzerland and Australia was signed on 28th January 1986. This is a framework agreement which regulates the safeguards arrangements necessary for initiating co-operation between Swiss and Australian undertakings in the field of peaceful uses of

nuclear energy The Agreement, which contains no obligations for supplies and purchases, covers all fields of peaceful nuclear co-operation and concerns transfers between both countries of nuclear and non-nuclear materials, as well as equipment and technology

Guarantees of the peaceful uses of the above-mentioned items are the main object of the Agreement They include, in particular, the commitment of both Parties to use the items transferred for exclusively peaceful, non-explosive purposes, to have such uses verified by the International Atomic Energy Agency, and to re-export such items to a third country only in compliance with specific conditions and to secure their safety In addition, the Agreement determines the conditions for Australian origin nuclear materials processing and for re-use of the plutonium recovered by this process

The Agreement provides Swiss electricity utilities with the possibility of diversifying their nuclear materials supplies It also guarantees secure, long-term planning for the nuclear fuel cycle

This bilateral Agreement contributes to the strengthening of the international non-proliferation system based on the Non-Proliferation Treaty to which both countries are Parties The Agreement will be submitted to Swiss Parliamentary approval

• *Belgium – People's Republic of China*

1985 AGREEMENT FOR CO-OPERATION IN THE PEACEFUL USES OF ATOMIC ENERGY

On 18th April 1985 the Government of Belgium and the Government of the People's Republic of China concluded in Beijing a framework agreement setting out the type and fields of co-operation in the peaceful uses of atomic energy Both Parties agree in particular to co-operate on reactor research, construction and design, nuclear fuel fabrication and technology, nuclear safety and radiation protection, R and D in nuclear science and technology, also for medical, biological and agricultural purposes

The content and scope as well as the practical arrangements for such co-operation will be the subject of special agreements to be concluded by the Parties

The Agreement specifies that co-operation shall be for exclusively peaceful purposes and that the security measures applied for the nuclear materials and equipment as well as for the technical information covered by the Agreement shall be those defined by the International Atomic Energy Agency (IAEA). In addition, any transfer to a third party of the above-mentioned materials, equipment and information may only be effected by prior consultation and mutual consent between the Parties

Finally, both Parties agree to apply physical protection measures as specified in the Annex, which also contains a Table on the categorisation of nuclear materials This categorisation conforms to the Guidelines for Nuclear Transfers circulated by the IAEA under reference INFCIRC/254

The Agreement entered into force on the date of its signature for a period of fifteen years and may subsequently be extended for five-year periods successively

• *Belgium–Egypt*

1984 AGREEMENT CONCERNING CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY

On 8th November 1984, the Government of Belgium and the Government of the Arab Republic of Egypt concluded in Brussels an agreement detailing their co-operation in the peaceful uses of nuclear energy (published in Moniteur belge of 27th November 1985) The areas covered are the following

- planning, construction and operation of nuclear power plants in Egypt, as well as other nuclear facilities and research establishments;
- safety of nuclear facilities and radiation protection;
- exploration and exploitation of uranium resources,
- scientific and technological research and development,
- training of scientific and technical personnel,
- use of nuclear energy for purposes other than the generation of electricity, in particular its utilisation in medicine, biology and agriculture

Implementation of the co-operation will be the subject of special agreements between the Parties in each case and will make provision for liability where necessary

The Parties have undertaken that no material, equipment or information transferred under the Agreement will be used in such a way as to result in a nuclear explosive device, and that such material and equipment will be subject to safeguards as specified in an agreement with the IAEA in accordance with the Non-Proliferation Treaty Furthermore, transfers to another country of the materials and equipment covered by the Agreement may not be effected unless that country has also concluded a safeguards agreement with the IAEA It is provided that the Parties will consult each other on this question

The Parties have also undertaken to apply physical protection measures in accordance with the physical protection principles set out in IAEA document INFCIRC/225 Rev 2 and any subsequent revisions

The Agreement, which is reproduced in the "Texts" Chapter of this Bulletin, entered into force on 1st August 1985 for a period of thirty years and may subsequently be extended for five-year periods successively

• *Brazil – People's Republic of China*

1984 MEMORANDUM OF UNDERSTANDING ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY

On 29th May 1984, the Government of the Federative Republic of Brazil and the Government of the People's Republic of China concluded a Memorandum of Understanding prior to the conclusion of an agreement for co-operation in the peaceful uses of nuclear energy

It was agreed that the areas of co-operation may include, in particular, basic research in the peaceful uses of nuclear energy, technology concerning research, design, building and operation of nuclear power plants and research reactors, uranium prospecting and processing technology, fuel element fabrication, nuclear safety regulation and research and finally, radioisotope production and applications

• *Canada–Euratom*

MEMORANDUM OF UNDERSTANDING ON CO-OPERATION IN THE FIELD OF FUSION (1986)

On 20th January 1986 the Council of the European Communities approved a Memorandum of Understanding between the European Atomic Energy Communities (EURATOM) and the Government of Canada on co-operation in research and development in the field of fusion (OJEC No L35 of 11th February 1986) The Memorandum will remain in force for five years and covers the following forms of co-operation

- *exchange of information, including progress reports and other* scientific non-confidential results which the Parties have in their possession or is available to them and which they may divulge,

- mutual participation in scientific meetings organised by either Party,

- exchange of experts, each Party bearing the costs incurred by secondment of its own experts,

- performance of joint experiments, studies and projects agreed upon by the joint committee, in particular regarding the Next European Torus - NET (see Nuclear Law Bulletin No 22) and other facilities belonging to either Party,

- exchange of materials, equipment and instruments

• *Canada–Turkey*

1985 AGREEMENT FOR CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY

By Act No. 3258 of 11th February 1986 the Turkish National Assembly approved ratification of the Agreement of 18th June 1985 between the Government of Turkey and the Government of Canada for Co-operation in the Peaceful Uses of Nuclear Energy. The Agreement will be ratified by a decree by the Council of Ministers which is currently being prepared The Agreement covers nuclear co-operation in industry, agriculture, electricity generation, etc, and provides the legal framework for such co-operation It lays down the general provisions for transfer of nuclear facilities, materials and technology between the two Parties and specifies the areas concerned

The Agreement provides that all the activities within its scope shall be carried out for exclusively peaceful purposes. In this connection, the Parties undertake to apply the IAEA safeguards under the Non-Proliferation Treaty as well as the IAEA physical protection recommendations in accordance with the Convention on the Physical Protection of Nuclear Material (see Nuclear Law Bulletin Nos 24 and 35).

• *People's Republic of China–United Kingdom*

1985 AGREEMENT FOR CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY

The Governments of the United Kingdom and the People's Republic of China concluded an Agreement on 3rd June 1985 setting out the areas of co-operation between the two countries in the peaceful uses of nuclear energy,

supplemented by an exchange of letters concerning the interpretation of this Agreement

The two Parties have singled out co-operation in civil nuclear research, including reactor safety, radioactive waste management and radiation protection, as well as consultancies relating to energy planning, the impact of nuclear power on energy supplies and the environment and on project management, safety, licensing and regulatory advice Fuel cycle services including uranium mining and fuel fabrication is also an area of co-operation

The practical and financial measures required for implementation shall in each case be the subject of special arrangements to be concluded by the two Governments

Co-operation between the two Parties shall be for exclusively peaceful purposes and the transfer to third parties of any nuclear material, equipment or facilities supplied in the context of the present Agreement may not take place without prior consultation between the two Governments In the event of such a transfer, the two Governments shall ensure that the third state pledges peaceful use only and accepts IAEA safeguards

The two Parties also agree to ensure adequate physical protection at levels specified in the Annex to the Agreement. The Agreement entered into force on 3rd June 1985

• *International Atomic Energy Agency – Italy*

AMENDMENT TO THE AGREEMENT BETWEEN THE IAEA AND ITALY CONCERNING THE SEAT OF THE INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

By an exchange of letters dated 3rd and 30th May 1983, the Government of Italy and the IAEA amended Annex I of the Agreement between them concerning the Seat of the International Centre for Theoretical Physics (ICTP), which had entered into force on 15th June 1968, the text of which is set forth in document INFCIRC/114 The Amendment concerns the availability of an additional building constructed by the Italian authorities for the purposes of the ICTP The Amendment entered into force on 17th March 1986, the date on which the IAEA received the Italian instrument of ratification

• *International Atomic Energy Agency–Monaco*

NEW AGREEMENT FOR THE IAEA LABORATORY IN MONACO

The Government of Monaco and the International Atomic Energy Agency signed on 16th May 1986 an Agreement that establishes the basis for continuation of scientific activities at the International Laboratory of Marine Radioactivity at Monaco, which for the past twenty-five years has been conducting scientific programmes related to monitoring of radioactivity and protection of the marine environment. The IAEA Laboratory of Marine Radioactivity has been headquartered at the Oceanographic Institute at Monaco since 1961 on the basis of a tripartite agreement concluded between the Agency, the Government of Monaco and the Institute (see Nuclear Law Bulletin No 26)

The new Agreement establishes a permanent seat for the Laboratory in premises and installations to be provided by the Government of Monaco, which will also assume responsibility for defraying costs of services and maintenance

The Laboratory's programme of activities relate, among others, to the fate of radionuclide releases to the marine environment from normal nuclear operations and to the examination of transuranic element behaviour on the oceans resulting from fallout, satellite burnouts, reactor effluents, reprocessing, and other nuclear fuel cycle plants.

MULTILATERAL AGREEMENTS

RATIFICATION OF 1982 PROTOCOLS TO AMEND THE PARIS CONVENTION AND THE BRUSSELS SUPPLEMENTARY CONVENTION (1986)

Pursuant to a parliamentary act authorising ratification of the 1982 Protocol to amend the Paris Convention on Third Party Liability in the Field of Nuclear Energy (see Nuclear Law Bulletin No 34), Turkey deposited its Instrument of ratification on 21st January 1986.

Norway for its part, ratified the Protocol to amend the Paris Convention and the Protocol to amend the Brussels Supplementary Convention on 3rd June and 13th May 1986 respectively The Norwegian Act of 12th May 1972 concerning nuclear energy activities (see Nuclear Law Bulletin Nos 11 and 12) has been amended to take account of ratification of both Protocols

The two Protocols were adopted on 16th November 1982. The Protocol to amend the Paris Convention will enter into force when ratified by two-thirds of its Contracting Parties, while the Protocol to amend the Brussels Supplementary Convention requires ratification by all Contracting Parties for its entry into force (see status of ratifications in Nuclear Law Bulletin No 36)

CONVENTION ON THE PHYSICAL PROTECTION OF NUCLEAR MATERIAL

The Governments of Liechtenstein, Mongolia, Argentina and Spain signed the Convention on Physical Protection of Nuclear Material on 13th January, 23rd January, 28th February and 7th April 1986 respectively

The Governments of Canada and Yugoslavia ratified the Convention on 21st March and 14th May 1986 respectively, thus bringing the number of ratifications to seventeen In accordance with its Article 19 1, twenty-one ratifications or accessions are required for its entry into force (see Nuclear Law Bulletin Nos 35 and 36 for the status of signatures and ratifications).

PROTOCOL FOR THE PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION FROM LAND BASED SOURCES (1980)

This Protocol which completes the mechanism set up by the Barcelona Convention of 16th February 1976 on protection of the Mediterranean Sea against pollution (see Nuclear Law Bulletin Nos 18, 20 and 31) was adopted in Athens on 17th May 1980

The Protocol invites all Mediterranean countries (including the European Economic Community) to take all the necessary measures to combat pollution of this area by discharges from rivers, plants on the coast or emissaries, or from any other-land based source on their territory

The Contracting Parties undertake to eliminate, in the area covered by the Protocol, pollution from land-based sources by the substances listed in its Annex I These substances (item 9) include radioactive substances and waste, when their discharge does not conform to the radiation protection principles defined by the competent international organisations, taking into account protection of the marine environment

The Parties also undertake to reduce pollution from land-based sources by including in the licence delivered by the competent authorities the provisions set out in Annex III to the Protocol.

The Athens Protocol came into force on 17th June 1983 In 1985, its Contracting Parties included Algeria, Egypt, France, Monaco, Spain, Tunisia, Turkey and the EEC It should be noted that by Act No 128 of 5th March 1985 (Official Gazette of 15th April 1985) the Italian Parliament authorised ratification of this Protocol

• *Greece*

ACT OF 8th FEBRUARY 1985 ON THE DEVELOPMENT OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH

Extracts from the Act concerning nuclear energy*

Section 27

Hellenic Commission on Atomic Energy

1 A Hellenic Commission on Atomic Energy (EEAE), constituted under the Ministry of Research and Technology (YPET), is composed of nine members chosen among researchers and university scientists highly qualified in the field of nuclear sciences.

The Minister of Research and Technology designates, by order, the President, Vice-President, and members of the Commission as well as their deputies and decides questions concerning the composition and functioning of the Commission Employees of the Directorate for the promotion of research of the YPET are charged with the secretariat functions of the EEAE

2 The EEAE, in its consultative capacity, is the official adviser of the State for questions relating to nuclear science and technology

3 The EEAE is charged with encouraging scientific and technical research in the field of the peaceful uses of nuclear energy, in the different areas of science, industry, agriculture, health, environmental protection and energy

The objective of EEAE is, in particular, to·

a) follow international developments as concerns new methods of producing nuclear energy and to suggest the necessary measures for their application;

b) provide for the training of scientists and technicians in order to ensure the scientific and technical capacity necessary to meet

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* Unofficial translation by the Secretariat.

the needs resulting from the application of nuclear science and technology,

c) collaborate with the National Centre for Physical Science Research "Demokritos" (EKEFE) and other national research institutes to define research programmes relating to those scientific sectors for which it is competent,

d) propose competent scientists and technicians to represent the country in international organisations pursuing activities in the field of nuclear science and technology;

e) control whether the conditions necessary for the issuance of import, construction and operating licences for all types of nuclear reactors have been met,

f) issue permits for the production, holding, transfer, and use of radioactive and fissile materials as well as permits for the holding and utilisation of radioactive sources;

g) ensure protection of the public and national property against the dangers of radioactivity,

h) represent the country in international organisations for all questions within its competence.

4 The decisions of the EEAE regarding the National Centre for Physical Science Research "Demokritos" (EKEFE) are taken by its Director.

5 Until the designation, in accordance with the provisions of this Act, of the members of the Scientific Council of EKEFE, the Nuclear Research Centre will continue in operation and will be directed according to the provisions in effect at the time of publication of this Act

6 The legislative Decrees 3891/1958 (Official Journal A'191), 4115/1960 (Official Journal A'163) and Law 451/1968 (Official Journal A'135) are abrogated, subject to application of the preceding paragraph The dispositions providing for the granting of a work hardship allowance due to radioactivity for personnel of the Nuclear Research Centre transferred to EKEFE will remain in effect

7 The EEAE is empowered to determine the level of indemnities for the transfer of material of all sorts (radioactive material, special apparatus, etc) as well as for the furnishing of services to third parties.

The above decision shall be subject to the agreement of the Ministry of Research and Technology responsible for the EEAE

Section 28

National Centre for Physical Science Research "Demokritos" (EKEFE)

1 A National Centre for Physical Science Research (EKEFE) "Demokritos", is created, with a legal personality, under the auspices of the Ministry for Reseach and Technology

Research work in the fields of physics, chemistry, biology sciences, material sciences, electronics, nuclear technology and computer sciences will be carried out within EKEFE "Demokritos"

2 All property, installations, apparatus, materials and equipment pertaining to the EEAE will be transferred, with full rights, upon publication of this Act, to EKEFE "Demokritos", with the exception of scientific apparatus and in general all equipment belonging to the Directorate for radioactive ore research (DERO) necessary for geological research for radioactive ore sources These will be transferred following a decision by the Hellenic Commission of Atomic Energy (EEAE) to the Institute for Geological and Mineral Research (IGME) which will in future be responsible for such research

3 Starting with the application of this Act and until the end of fiscal year 1985, the expenses of EKEFE "Demokritos" and of EEAE will be charged to the State budget (public investments) against funds affected to EEAE by the Ministry of Research and Technology

The appropriations entered in the budget for public investments on behalf of EEAE for works 81370, 113700, 8013700, 8013701 will be transferred to IGME

4a Upon publication of this Act, personnel of all categories affected to EEAE will be transferred to EKEFE "Demokritos" and reassigned, in accordance with the provisions of this Act, as personnel of the Centre Exempted from this are personnel of all categories, regardless of the type of work contract, who are attached to the Directorate for radioactive ore research of the EEAE and who are remunerated under the budget of public investments of EEAE, or who, irrespective of the type of remuneration, are specialised mining engineers to be transferred to IGME. Subject to publication of this Act and, at the latest, two months after expiry of the time allowed for the submission of assignment requests by virtue of Act 1476/1984, personnel transferred upon their request may ask for reassignment taking into account their professional capabilities and the duration of their employment with the administration This reassignment will be effectuated by decree of the Minister of Energy and Natural Resources to corresponding posts which will be set up, structured and graded by this same ministerial decree, following advice of the Board of Management of IGME

The work contract, level of remuneration, as well as the social security regime of personnel who, for their own reasons are not reassigned, will not be modified The remuneration of such personnel, as well as other expenses will be entered in the budget of public investments which will be transferred from EEAE to IGME

Personnel transferred as a result of their request for reassignment, by virtue of the provisions of Act 1476/1984, will remain affected to YPET The latter, until it is reorganised, will be responsible for IGME in accordance with the statute in force at time of publication of this Act

4b The reassignment of scientific personnel of EEAE under private-law work contracts for fixed or undetermined periods, shall be decided in accordance with the provisions of Section 26 of this Act

4c The administrative, technical and auxilliary personnel, while preserving the same status it had at EEAE, will be transferred and affected to EKEFE "Demokritos" Subject to paragraph 3 of Section 26 of this Act, a presidential decree published in conformity with Section 25, will decide all questions related to the setting up and functioning of EKEFE, the conditions, terms, competent bodies and in general the procedure for the reassignment of personnel to corresponding posts created by this Act, the statute of those not reassigned by virtue of paragraph 3 of Section 26, as well as the possibility of preserving the same statutory rights as concerns social security and retirement

4d The provision of paragraph 3 of Section 15 of Act 1854/1951 (Official Journal A'82) which was amended and replaced by the provisions of Section 9 of Act 955/1979 (Official Journal A'189) and of Act 1202/1981 (Official Journal A'247) and which refers to "the personnel of the Hellenic Commission of Atomic Energy (EEAE)" shall apply to "all personnel of the Hellenic Commission of Atomic Energy (EEAE) who receive a radioactivity allowance", which shall continue to be paid

4e Upon publication of this Act, personnel responsible for work under the EEAE for a period of more than one year, under a self-supervision regime but who carried out, nevertheless, administrative duties, will be reassigned to personnel posts provided for by the provisions of Sections 20 and 21 of this Act

• *Belgium-Egypt*

AGREEMENT BETWEEN THE GOVERNMENT OF THE KINGDOM OF BELGIUM AND THE GOVERNMENT OF THE ARAB REPUBLIC OF EGYPT CONCERNING CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY

The Government of the Kingdom of Belgium and
The Government of the Arab Republic of Egypt

hereinafter referred to as the Contracting Parties,

Confirming their interest in the peaceful uses of nuclear energy in accordance with the Memorandum of Understanding concerning co-operation in the peaceful uses of nuclear energy of 22nd March 1983, and in particular on the design, construction and operation of nuclear power plants and related health and safety aspects as well as fuel services,

Recognizing the benefits to be derived by both the Kingdom of Belgium and the Arab Republic of Egypt from close co-operation in scientific, technological and economic development relating to peaceful uses of nuclear energy,

Mindful of the fact that both the Kingdom of Belgium and the Arab Republic of Egypt are Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT),

Noting that the Kingdom of Belgium is a Party to the Treaty establishing the European Atomic Energy Community,

Affirming their support to further the goals of the International Atomic Energy Agency (IAEA) to the best of their ability,

Have agreed as follows·

Article 1

1 The Contracting Parties shall promote co-operation between them in the peaceful uses of nuclear energy, in particular in the following areas

a) planning, construction and operation of nuclear power plants in Egypt, as well as other nuclear facilities and research establishments,

b) safety of nuclear facilities and radiation protection,

c) exploration and exploitation of uranium resources,

d) scientific and technological research and development,

e) training of scientific and technical personnel;

f) use of nuclear energy for purposes other than the generation of electricity, in particular its utilization in medicine, biology and agriculture.

2 The implementation of the co-operation under this Agreement shall in each case be the subject of specific agreements or other arrangements to be concluded between the Contracting Parties or other public or private entities.

Article 2

1 The co-operation shall be promoted by

a) transfer from the Kingdom of Belgium to the Arab Republic of Egypt of material, equipment and technology for the planning, construction and operation of nuclear power plants together with such other services in connection with the operation of nuclear power plants as may be agreed upon;

b) exchange of information,

c) exchange of scientific and technical personnel,

d) experts meetings and other joint activities,

e) provision or procurement of advisory and other services,

f) implementation of joint or co-ordinated research, development and other nuclear projects

2 The Contracting Parties shall facilitate such co-operation inter alia by providing materials, equipment and technology as may be agreed upon between them

3 The distribution of the costs resulting from the co-operation under this Agreement shall be determined by the specific agreements or other arrangements referred to in paragraph 2 of Article 1 above.

4. Unless otherwise provided for in specific agreements or other arrangements the travel expenses incurred by experts and other persons exchanged between the Contracting Parties under this Agreement shall be borne by the sending Contracting Party. The cost of sojourn and any internal travel expenses incurred in that connection shall be borne by the receiving Contracting Party

Article 3

In order to promote the implementation of this Agreement the Contracting Parties shall agree to establish a joint liaison group meeting whenever appropriate and normally alternately in the Kingdom of Belgium and the Arab Republic of Egypt The joint liaison group shall review the progress made with regard to activities under this Agreement and consult on measures that may be necessary in this respect. Moreover, joint groups of experts may be appointed to consider specific issues

Article 4

1 The exchange of information shall take place either between the Contracting Parties themselves or between the entities designated by them

2 The Contracting Parties or the entities designated by them may transmit the information obtained to public institutions or to non-profit institutions or corporations supported by public authorities. Such transmission of information shall be precluded or limited if the other Contracting Party or the entities designated by it so decide before or at the time of the exchange

3 Each Contracting Party shall ensure that the recipients entitled to information under this Agreement or under the specific agreements or other arrangements to be concluded for its implementation do not transmit such information to entities or persons not authorised under this Agreement or under specific agreements or other arrangements to receive such information

Article 5

1. This Agreement shall not apply to.

a) information which, by virtue of the rights of third parties or of arrangements concluded with third parties, may not be communicated,

b) Government-classified information, unless approval of the transmission of such information is granted by the competent authorities of the respective Contracting Party The handling of such information shall remain subject to a special arrangement stipulating the procedures for transmission

2. Information of significant commercial value shall be communicated only on the basis of special arrangements. Special arrangements shall also determine how to deal with the information of significant commercial value resulting from joint research and development

3 The Contracting Parties shall endeavour to ensure that the participating entities indicate to each other as far as possible the degree of reliability and applicability of information exchanged or materials and equipment provided The fact that the Contracting Parties may be involved in the transmission of information does not in itself constitute any ground for liability of the Contracting Parties.

Article 6

The specific agreements or other arrangements referred to in paragraph 2 of Article 1 shall inter alia make provision for liability in respect of damage sustained by the Contracting Parties or by third parties in connection with the implementation of this Agreement, provided that there is a need for such provision in individual cases

Article 7

1 The Contracting Parties declare that their co-operation in the peaceful uses of nuclear energy will not contribute to the proliferation of nuclear weapons or other nuclear explosive devices

2 The Contracting Parties agree that no material, equipment or information transferred under this Agreement, nor any subsequent generation of special fissionable material, nor any other material produced, processed or used through the use of any items transferred, shall be used in such a way as to result in a nuclear explosive device

3 Nuclear material transferred under this Agreement, and nuclear material used in or produced through the use of material, equipment or information so transferred, shall be subject to safeguards as specified in an agreement with the IAEA for the application of safeguards in accordance with paragraphs 1 and 4 of Article III of the NPT being in force for the receiving Contracting Party

4 To the extent that such IAEA safeguards cannot be implemented, the Contracting Parties shall undertake to agree at the earliest possible time on a system of safeguards which is equivalent in scope and effect to the above-mentioned system Such safeguards shall be applied if and when nuclear material is located in the territory of the receiving Contracting Party in respect of which an obligation exists pursuant to paragraph 2 of this Article

Article 8

1 Any nuclear material, equipment or information in respect of which the receiving Contracting Party is under an obligation pursuant to paragraph 2 of Article 7 above may not be transferred to another country unless that country enters into the same obligations as are stipulated in Article 7 and 10 of this Agreement and has concluded a safeguards agreement with the IAEA with regard to the transferred items The Contracting Parties shall consult each other on this matter

2 Such transfer involving uranium enriched with uranium 235 to more than 20 per cent, uranium 233 or plutonium, including all subsequent generations of fissionable material derived therefrom as well as irradiated nuclear fuel elements shall only take place with the agreement of the Contracting Parties

Article 9

Each Contracting Party shall take the measures required to ensure effective physical protection of the nuclear material and facilities in its territory as well as during transport between the territories of the Contracting Parties and to other countries In this regard, the Contracting Parties, unless they otherwise agree, shall apply to nuclear material and facilities transferred or nuclear material produced under this Agreement the principles set forth in IAEA document INFCIRC/225/Rev. 2 as well as in regulations or recommendations of the IAEA supplementing, amending or replacing the said document The Contracting Parties shall exchange their experience regarding the application of such principles

Article 10

Without prejudice to the right of either Contracting Party to conclude other agreements in the field of peaceful uses of nuclear energy, nothing in this Agreement shall be interpreted as affecting the obligations resulting from the participation of either Contracting Party in other international agreements for the peaceful uses of nuclear energy, concluded before the date of signature of this Agreement, including those arising for the Kingdom of Belgium from the Treaty establishing the European Atomic Energy Community

Article 11

1 Any disputes arising from the interpretation or application of this Agreement shall, as far as possible, be settled by consultation between the two Contracting Parties

2 If a dispute cannot thus be settled, either Contracting Party may request that the dispute be submitted to an arbitral tribunal for its decision Such arbitral tribunal shall be constituted ad hoc by mutual agreement between the Contracting Parties

Article 12

1. This Agreement shall enter into force as soon as the Contracting Parties have informed each other by an exchange of notes that the respective constitutional requirements for such entry into force have been fulfilled

2. This Agreement shall remain in force for a period of thirty years and shall subsequently be extended for successive periods of five years unless an extension is excluded by a corresponding note of either Contracting Party six months prior to the expiry of any such period The duration of specific agreements or other arangements shall not be affected by the termination of this Agreement In the event that this Agreement ceases to have effect, its relevant provisions shall remain in force for the period and to the extent necessary for the implementation of the specific agreements or other arrangements concluded under this Agreement

3. The provisions of Article 7 and 8 of this Agreement shall remain in force as long as the relevant nuclear material is in the territory of the Contracting Party concerned

4 The Contracting Parties may agree at any time to amend this Agreement The entry into force of any amendment will be in accordance with the provisions of paragraph 1 of this Article.

Done at Brussels, this 8th day of November 1984, in duplicate in the English, Arabic, Dutch and French languages, all texts being authentic In case of contradiction between the French, Dutch and Arabic texts, the English text shall prevail

STUDIES AND ARTICLES

ARTICLES

FIELD OF APPLICATION OF BELGIAN LEGISLATION ON NUCLEAR THIRD PARTY LIABILITY*

H Conruyt and F. Rivalet

Belgian Ministry of Economic Affairs

The following principles may be briefly restated

1. Article 2 of the Paris Convention provides that the Convention does not apply to incidents occurring in the territory of non-Contracting States or to damage suffered in such territory, but it leaves Contracting States free to provide otherwise and to extend the scope of the Convention

2 The Supplementary Convention to the Paris Convention gives further details relating to the place where the damage is suffered, in that damage suffered on or over the high seas is covered in two cases only·

- in the case of damage on board a ship or aircraft registered in the territory of a Contracting State;
- in the case of damage suffered by a national of a Contracting State provided that, with regard to damage to a ship or an aircraft, the ship or aircraft is registered in the territory of a Contracting State

The range of possibilities as to the scope of the Paris Convention, offered under its Article 2 to Contracting States, can thus be summarised as follows·

a) incidents occurring on the territory of a Contracting State, even if the resulting damage is suffered in the territory of a non-Contracting State;

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* Responsibility for the views and facts in this article rests solely with the authors.

b) damage suffered in the territory of a Contracting State, even if the incident causing the damage occurred in the territory of a non-Contracting State,

c) incidents occurring and damage suffered in the territory of a non-Contracting State

The Steering Committee for Nuclear Energy's Recommendation of 22nd April 1971 advocated application of the Convention to all damage suffered in the territory of Contracting States irrespective of where the incident took place Direct use was made of this in Belgian legislation - at least as concerns the possible extension mentioned under (b) - in Section 2(1) of the 1985 Act on Third Party Liability in the Field of Nuclear Energy

As to case (c), also mentioned in this sub-section and which has not been the subject of a Recommendation, it is dealt with again in Section 2(2) of the Act which empowers the King to extend the scope of the Act to damage caused by nuclear incidents (wherever they occur) and suffered in the territory of non-Contracting States, provided that the victim is a national of a Contracting State

If the provisions of the Conventions are compared with the Belgian Act, it will be seen that the latter applies to damage

- caused by an incident for which the operator of a nuclear installation located in Belgian territory is liable and

- suffered:

  1 in the territory of a Contracting State, or

  2 on or over the high seas on board a ship or aircraft registered in a Contracting State, or

  3 on or over the high seas, by a national of a Contracting State provided that, in the case of damage to a ship or an aircraft, the ship or aircraft is registered in a Contracting State

It will thus be seen that the place where the accident occurred is irrelevant.

The Operator

Although, under the Paris Convention, the operator of a nuclear installation must be recognised or designated as such by the authorities, the 1985 Belgian Act on Third Party Liability in the Field of Nuclear Energy (Section 3), has adopted the approach whereby operator status no longer depends exclusively, as it did before, on prior official recognition

Operators are now defined in functional terms, the possession of nuclear materials being enough to confer the status of operator For, it was considered in Belgium that the need to provide maximum protection for any victims of a nuclear incident meant that there should be a close link between the operator's absolute liability in such an event, and the existence of risk

The mere fact of holding or using, in a nuclear installation, nuclear fuel, or radioactive products or waste, or taking charge of nuclear substances intended for his installation, brings an operator within the ambit of the Act and the Paris Convention, his liability now falling under the rules of absolute liability, and no longer those of the ordinary law

Section 9 of the Act provides that, before engaging in the activities described above, an operator must be recognised as such, this recognition being itself subject to the ability of the operator to cover his liability by taking out insurance or arranging for some similar financial security

The connection between Sections 9 and 3 is thus of a consecutive nature, it being possible for there to be an operator within the meaning of the Act without his being recognised as such

Third party liability

a) The principles

The Act of 22nd July 1985 on Third Party Liability in the Field of Nuclear Energy continues to follow the principle of absolute liability, channelled to the operator of a nuclear installation, limited in time but also as to the type of damage which will be compensated and the amount of compensation.

Since the corollary of this principle of absolute liability is the exclusion of the application of the ordinary law, the victim of a nuclear incident is not entitled to base his action on the normal rules of the law of civil liability (Articles 1382 et seq of the Civil Code) to obtain compensation for the damage suffered Thus, he may neither choose between the rules of the ordinary law and the specific Act, nor increase the amount of compensation payable under the Act by bringing an action for the balance on the basis of the ordinary law[1]

The channelling of liability to the operator means that no person other than those mentioned in Article 6 (c) (i) of the Paris Convention can be liable, and that the rights of recourse of the operator, insurer or person providing the financial guarantee are limited to those cases provided for under Article 6 (f) of the Convention

As to possible restrictions on the operator's liability, the general Insurance Act of 11th June 1874 provides that insurance does not, unless otherwise agreed, cover war risks, or loss or damage caused by riots A simple reference to the Paris Convention would not, therefore, have been enough to exclude from the scope of the Act incidents due to an act of armed conflict, hostilities, civil war or insurrection, and specific provision is thus made to exonerate the operator from all liability for nuclear incidents arising from such causes.

With regard to grave natural disasters of an exceptional character, on the other hand, it was considered that damage resulting from them should be covered, and that for two reasons

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1. See infra exception under social legislation

1) Exonerating the operator from liability for nuclear incidents caused by natural disasters would be contrary to the general principle of his absolute liability (ie completely divorced from the concept of fault), while the presence of nuclear installations could increase the risk run in the event of a natural disaster

2) Since the "exceptional character" of grave natural disasters is described only briefly in the Exposé des Motifs of the Paris Convention, it might be feared that advantage could be taken of an exoneration in this field to negate the principle of absolute liability

As to the limitation of the operators' liability with reference to the type of damage, the Act of 22nd July 1985 is based on the provisions of Article 3 (a) of the Paris Convention to ensure that third parties - ie those for whom the whole special compensation system under the Act was designed - should not be deprived of the compensation due in the event of a nuclear incident

The operator thus bears no liability for damage to the installation itself or to on-site property connected with the installation, for example, products left by clients for irradiation or reprocessing. The operator is, on the other hand, liable for damage to the means of transport if he is also liable for damage caused during such transport under the provisions of Section 14 of the Act However, compensation for damage to the means of transport may not reduce the maximum liability amount borne by the operator in the event of a nuclear incident

b) Extent of third party liability

The operator's maximum liability amount has been fixed at BF 4 thousand million, taking into consideration the compensation amounts which may be payable by the Belgian Government and the Signatory countries of the Paris and Brussels Conventions, the elasticity of the insurance market, and lastly, the position in other countries A similar solution to that adopted in the Federal Republic of Germany or Switzerland under which the operator's liability is different from the amount insured was considered but not chosen, the basic criterion remaining that of insurability

The maximum amount of BF 4 thousand million, which is both a minimum and a maximum since the operator is liable up to this amount but cannot be liable above it, may, however, be modified

1) upwards, in accordance with the desire to maintain the said amount at a constant value, a possible criterion being the gross national product deflator,

2) downwards, to take account of the special features of certain installations, in particular their capacity

The Act has also retained the principle of the joint and several liability of operators when damage is caused by nuclear substances for which more than one operator is liable. However, no one operator may be required to cover an amount exceeding that of his maximum liability which, in most cases, is BF 4 thousand million. In practice, apart from the case of transport,

joint and several liability could arise in relation to one only of the present sites

Joint and several liability is to the advantage of victims since it allows them to bring a claim for the full compensation amount, albeit limited to BF 4 thousand million, against each of the operators liable Any actions brought by the various operators involved against each other are regulated by the ordinary law of the sharing of liability.

Lastly, no rules have been laid down in advance as to a system of proportionate compensation for victims if the actual amount of damage should exceed the compensation amounts laid down by law It will thus be for the King to determine these at a later date

c) Cover for liability

The operator is required, as before, to cover his liability by insurance or other financial security. Recognition as an operator is linked to this obligation, performance of which is a prior and mandatory condition for carrying out the activities of an operator.

In addition to the link between the status of operator and the obligation of the latter to have himself recognised as such by the King by proving to have the appropriate financial security, the Act provides for the case of the operator's failure to pay.

In this event, and to avoid any legal vacuum, the State is obliged to compensate, up to the amount of the operator's liability, any damage which it has been impossible to compensate by means of insurance or mandatory financial security

d) Transport

Although the operator remains liable, in accordance with the provisions of Article 4(a) and (b) of the Paris Convention, in the event of a nuclear incident involving nuclear substances in course of carriage, liability may be transferred to the carrier if he proves that the conditions relating to the financial security required of all operators have been met This possibility has been provided for because it is of a type to encourage the specialisation of carriers

In any event, the carrier, whether or not he has been substituted for the operator, must be in possession of a certificate stating that he satisfies the financial security conditions relating to operators or carriers, as the case may be

Finally, in the case of transit, the Act provides that cover for the liability which would arise from a nuclear incident must be equal to that required from operators of an installation located in Belgian territory, namely, an amount equal to BF 4 thousand million Additional insurance may, therefore, have to be taken out, depending on whether the amount under the law of the country of origin is higher or not

Social security and compensation of damage under the Conventions and the Act

This matter is dealt with essentially in Section 21

First, it will be recalled that the corollary to the principle of absolute liability under the Conventions, adopted in its entirety by the Belgian Act, is the definitive exclusion of the rules of the ordinary law The victim of a nuclear incident is thus not entitled to base an action on the traditional rules of the Civil Code (Articles 1382 et seq) to obtain compensation for his loss. In other words, the victim is not offered the choice between proceeding under the ordinary (civil liability) law and the Act on the Third Party Liability in the Field of Nuclear Energy, depending on which he considers more favourable

Particular provision has, however, been made for social security matters

Account has been taken of the possible overlapping of the absolute liability system with Belgian social legislation

The objective sought is to alleviate the effects of any gap which would result from a lack of co-ordination between two systems of different legal types, and thus to ensure that victims of nuclear incidents are not, in consequence, deprived of the compensation to which they are entitled

But the Belgian legislature wished to leave intact, for example, the schemes for compensating industrial accidents and occupational diseases

No civil liability action other than one under social law will be admissible unless the combined conditions of social legislation and the new Act are met, and within certain limits.

To the extent that social legislation allows for the granting of additional compensation, an action could be brought under the Act on Third Party Liability in the Field of Nuclear Energy

Prescription

Section 23 deals with prescriptive periods for the right to compensation, and the time limits for bringing actions for compensation

The provisions of Section 23(1) are identical with those in the text submitted (Senate 1983-1984 - 593, No 1)

These rules are as follows:

a) Actions for compensation against the operator must, on pain of forfeiture, be brought within ten years from the date of the incident

b) In the case of damage caused by a nuclear incident involving nuclear fuel or radioactive products or waste which, at the time of the incident, were stolen, lost, jettisoned or abandoned and had not been recovered, rights of action for compensation not exercised

within ten years after the incident shall also be forfeited However, no action may be brought more than twenty years after the date on which the nuclear fuel or radioactive products or waste were stolen, lost, jettisoned or abandoned.

During discussion in the Senate's Commission of the Economy, it was proved beyond doubt that the time limit of ten years was, in the light of the latest scientific information available, insufficient There was, however, no question of making the operator liable for an additional risk. Thus, the Belgian Government, on the basis of the possibility, offered by Article 8 of the Paris Convention, to establish a period longer than ten years, introduced an amendment to the effect that the State shall pay compensation for damage in respect of which, under Section 23(1), the right to compensation has been extinguished The State may not, however, take such action more than thirty years after the date of the nuclear incident

The right to claim compensation is, in any event, subject to a prescriptive period of three years after the time when the injured party became aware of the damage and the identity of the operator concerned, or from the time he ought reasonably to have become aware of these facts, subject always to the ten, twenty or thirty-year time limits laid down in Section 23(1) and (2).

It should be noted that the general rules of the ordinary law regulating the suspension and interruption of prescriptive periods continue to apply, unchanged

Lastly, the Government introduced an additional amendment [Section 23(4)], in terms of which any victim who brought an action within the prescribed time limits could always, subsequently, bring an additional action to claim full compensation for his loss in the event of an aggravation of damage after expiry of these limits, and that for as long as no judgment with the force of res judicata has been entered establishing the amount of compensation

Rights of recourse and procedural provisions

Section 25 regulates several types of rights of recourse

1. The insurer or person who provided financial security is given a right of recourse by subrogation against natural persons who intentionally caused the damage and against persons who, by contract, expressly allow the operator a right of recourse

2 The State is also entitled to exercise this right of recourse insofar as it has intervened to perform the obligations normally incumbent upon the operator, his insurer or any person having provided financial security.

3 A direct right of recourse is given to the Belgian State and the Contracting States to the Supplementary Convention insofar as they have paid compensation to victims in accordance with their obligations (second and third tiers of compensation) against natural persons who intentionally caused the damage or against persons who have recognised a right of recourse by contract.

4 If the mechanism provided for under Section 19 of the Act is used for the compensation of damage, both the Belgian State and the other Contracting Parties have, in the event that the operator was guilty of gross negligence, a right of recourse for recovery of the public funds allocated

Of the rules of procedure, note should basically be taken of the following points.

Actions must, at first instance, be brought before the Brussels Court of First Instance This is a public policy provision.

There are essentially two reasons for this rule on the one hand, to ensure a single body of case-law and, on the other, to allow proceedings to take place in an atmosphere of calm, which would not necessarily be the case if the action were brought before the civil court where the incident occurred

It will also be noted that victims of damage have a direct right of action against the insurer or any financial guarantor

Finally, it is for the King to organise the supervision of payment of compensation by the insurers or other financial guarantors He may, for the purposes of paying compensation under Sections 19 or 22, set up an administrative or legal conciliation procedure which, in any case, must precede any hearing before the court.

Additional measures

Sections 31 to 34 contain provisions for the reparation of damage suffered in Belgium which cannot be compensated under the Paris Convention or the Supplementary Convention.

Thus, Section 31 provides that the absolute liability system will apply to the transit of nuclear substances through Belgium, including storage, situations which, for the moment, seem to be excluded from the scope of the Paris Convention.

The purpose of Section 32 is to cover certain types of nuclear damage which do not fall under the Paris Convention provisions either, even taking account of the Protocol of 16th November 1982 Essentially, this concerns damage involving installations which, by reason of their nature or the nature of the quantities of radioactive materials held, cannot be considered as nuclear installations within the meaning of the Paris Convention

In both these cases, the King is empowered to make appropriate rules to achieve the purpose sought by Parliament and, moreover, to render applicable, in whole or in part, the provisions of Part I of the Act

The two above-mentioned cases are accompanied by a measure aimed at covering damage falling within the scope of the Paris Convention but not within that of the Supplementary Convention, i e. damage caused by an operator from a State which, although subject to the Paris Convention, is not Party to the Supplementary Convention and which, therefore, makes no contribution to the third tier of compensation.

Section 33 gives the King power to determine, for each of the categories which have just been mentioned, the manner in which the State will be called upon to bear that portion of the compensation exceeding the maximum amount fixed by Section 7 for which the nuclear operator is liable

It may also be mentioned that, during the preparatory work in Parliament, the Government was led to submit an amendment which was retained and approved both by the Senate's Commission of the Economy and in public hearing, and which consists of the provisions of Section 34 of the Act

Under this Section, the King may decide that the State will take charge of compensation of damage suffered in Belgian territory caused by a nuclear incident for which the operator of a nuclear installation located in the territory of a non-Contracting State is liable, when it is shown that the victim cannot claim, in that State, compensation for the damage suffered It had to be admitted that such a case did not in fact fall within the scope of the Conventions or the Belgian Bill.

THE SILKWOOD LITIGATION (TWELVE YEARS LATER)*

Linda S Gilbert

United States Nuclear Regulatory Commission

Introduction

Much has been written about the Silkwood case, both in the news media and in law journals. In general, these articles tend to be directed to specific audiences, and assume either no legal expertise or considerable familiarity with US law. This article will attempt to explain the complex Silkwood litigation for persons who have general legal expertise but may not be familiar with the detailed provisions and processes of US law that are involved.

The Facts[1]

Karen Silkwood was a laboratory analyst at Kerr-McGee's Cimarron plant near Crescent, Oklahoma. Kerr-McGee fabricated fuel for nuclear power plants at the facility under an Atomic Energy Commission (AEC) licence (The AEC was the predecessor of the Nuclear Regulatory Commission (NRC), which assumed the AEC's regulatory functions in 1975) On 5th, 6th and 7th November 1974, Silkwood was contaminated by plutonium. The cause of her contamination was not conclusively established The parties stipulated, however, that the plutonium came from Kerr-McGee's plant.

Silkwood was a member of the Oil, Chemical and Atomic Workers Union In September 1974 she met with union leaders in Washington, DC and presented charges to the AEC that Kerr-McGee had violated numerous health and safety regulations The AEC required documentation of the charges, and Silkwood was assigned to collect the required information She was engaged in collecting and recording this information from September 1974 until the time of her death

On 5th November, Silkwood was using a glove box to grind and polish plutonium samples (A glove box is a supposedly impervious box surrounding the plutonium and processing equipment which has glove holes permitting the operator to handle the equipment or the plutonium from outside the box) Silkwood monitored herself for contamination before and after a break at 5 30 p m and at 5 45 p.m and found no contamination She returned to work and, at 6 30 p m , discovered contamination on her left hand, right wrist, upper arm, neck, hair, and nostrils Contamination was also found inside the

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* Responsibility for the views and facts expressed in this article rests solely with the author.

1 The facts recited here are taken from the reported court decisions They are not exhaustive, but are intended to provide sufficient background for discussion of the various court opinions

gloves of the glove box in which she had been working AEC investigators later tested the glove box and found no leaks Silkwood was immediately decontaminated and was found to be free of contamination at the end of her shift She was given urine and fecal kits and was asked to collect samples for five days in order to check for plutonium excretion.

The next day, Silkwood did some paper work in the laboratory for about an hour Before leaving to attend a union meeting, she monitored herself and found contamination on her hands, right forearm, face and neck. Her hands were decontaminated and she was allowed to attend the meeting When she returned to the plant's health office later that afternoon, slight contamination was found on her right forearm, neck and face, and in her nostrils She was again decontaminated At her request, her locker and car were tested and found to be free of contamination

When Silkwood arrived at work on 7th November 1974, she went directly to the health office Contamination was found in her nostrils and on her hands, arms, chest, back, neck and right ear Urine and fecal samples collected on 5th, 6th and 7th November were contaminated, although the exterior surfaces of the kits were not The parties stipulated that the samples had been spiked with insoluble (not naturally excreted) plutonium Silkwood's apartment was monitored that morning and was also found to be contaminated The highest concentrations of plutonium were found in the bathroom and on a package of bologna and cheese in the refrigerator Silkwood's roommate, who was also a laboratory analyst for Kerr-McGee, was found to be contaminated as well, although Silkwood's boyfriend was not

Silkwood's contaminated possessions were destroyed She was sent to the Los Alamos Scientific Laboratory in New Mexico for tests to determine the extent of her contamination[2] She returned to work on 13th November and was killed that night in an unrelated automobile accident An autopsy revealed that the amount of plutonium in her body at the time of her death was between 25 and 50 per cent of the lifetime limit allowed by the AEC for plutonium workers

The Trial Court's Decision

Bill Silkwood, Karen's father, brought an action against Kerr-McGee in his capacity as administrator of her estate. (Federal jurisdiction was based on the diverse citizenship of the parties) He sought damages based on common law tort principles under Oklahoma law for injuries to Karen Silkwood's person and property from plutonium contamination that occurred on 5th, 6th and 7th November 1974 Following the trial, the jury expressly rejected Kerr-McGee's allegation that Silkwood intentionally removed the plutonium from the plant and carried it to her apartment in order to embarrass the company In addition, the jury found Kerr-McGee liable for the contamination on the basis of

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2 The exact circumstances of Karen Silkwood's accidental death, which have never been elucidated have, as we know, given rise to numerous conjectures (note by the Secretariat)

both strict liability and negligence The jury awarded actual damages of $500,000 for personal injury and $5,000 for property damage, as well as punitive damages of $10,000,000

Kerr-McGee filed alternative motions for judgment notwithstanding the verdict or for a new trial. In denying the motions on 18th August 1979, the trial court discussed at some length the "dramatic divergence of perspective" that had existed throughout the trial regarding the issues and the applicable law[3]. Kerr-McGee had sought to establish how the plutonium had come to be in Silkwood's apartment In contrast, the plaintiff sought to establish that Kerr-McGee should be held responsible for allowing plutonium to escape from its facility, causing injury to Silkwood. The court agreed with the plaintiff's view of the case, ruling that Kerr-McGee would be held strictly liable for any injury caused through the escape of its plutonium and that Silkwood did not assume the risk of this type of injury by virtue of her employment The court rejected Kerr-McGee's argument that federal preemption barred imposition of liability under state law It also ruled that compliance with government safety regulations should be accepted as evidence of having acted reasonably, but should not be used as conclusive proof Accordingly, the court rejected Kerr-McGee's argument that substantial compliance with the regulations would preclude an award of actual or punitive damages Finally, the court rejected the company's argument that the plaintiff's claim was barred by Oklahoma's workers' compensation laws

Kerr-McGee's Appeal

Kerr-McGee appealed to the US Court of Appeals for the Tenth Circuit, raising numerous issues. Among them were the applicability of workers' compensation as the exclusive remedy, federal preemption, appropriate standard of care, applicability of strict liability, excessiveness of damages, invalidity of punitive damages, and sufficiency of the evidence The court's opinion of 11th December 1981 concentrated on three main issues, as discussed below[4]

The court first reviewed the evidence in support of the personal injury claim and concluded that, in light of the lack of evidence of intentional contamination by Kerr-McGee, Silkwood, or others, the Oklahoma workers' compensation laws required the trial court to grant judgment notwithstanding the verdict and to hold that workers' compensation was the exclusive remedy for Silkwood's personal injuries

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3. Silkwood v. Kerr-McGee Corp., 485 Federal Supplement 566 (United States District Court, Western District of Oklahoma) The trial court's dismissal of the plaintiff's claims under the Civil Rights Act and the US Constitution was affirmed in a separate appeal. Silkwood v Kerr-McGee Corp , 637 Federal Reporter 2d 743 (US Court of Appeals for the Tenth Circuit 1980), cert. denied, 454 US 833 (US Supreme Court 1981)

4 Silkwood v. Kerr-McGee Corp , 667 Federal Reporter 2d 908 (US Court of Appeals for the Tenth Circuit 1981)

Workers' compensation statutes are generally designed to provide compensation for an employee injured in the course of employment without requiring the employee to prove the employer's negligence The employer, in turn, is protected from any other liability to the employee The Oklahoma Act provided that an employer's liability under that act was exclusive of all other liability at common law or otherwise It also established a presumption that, in the absence of substantial evidence to the contrary, a claim would fall within the Act's provisions The plaintiff had sought to avoid the applicability of the Act by alleging that all exposures to plutonium originated in Silkwood's apartment The court disagreed, finding that the circumstantial evidence, while "thin at best", could support only one conclusion that Silkwood's exposures on 5th, 6th and 7th November occurred either at the Kerr-McGee facility or in preparing urine samples for her employer Thus, they were related to her employment and governed by the Oklahoma Workers' Compensation Act Accordingly, the court reversed the award of actual damages for personal injury

The court next considered the property damage claim and held that the workers' compensation law applied only to personal injuries The court rejected Kerr-McGee's argument that the Atomic Energy Act preempted the property damage award It affirmed the trial court's application of strict liability and had no difficulty with finding proximate cause in view of the parties' stipulation that the plutonium in Silkwood's apartment came from the Kerr-McGee facility The court concluded that it was foreseeable that radiation contamination would occur from contact with plutonium that escaped from a nuclear facility The court therefore affirmed the property damage award

Finally, the court reviewed the award of punitive damages in light of Kerr-McGee's argument that the Atomic Energy Act precluded such an award on the grounds of federal preemption. The court concluded that any state action that substantially competes with federal regulation of radiation hazards is impermissible Because, in the court's view, the award of punitive damages under state law for exposure to radiation was no less intrusive of the federal regulatory scheme than direct state legislation of conduct related to radiation hazards, the court determined that the award was preempted Accordingly, the court reversed the award of punitive damages

The Supreme Court's Decision

Silkwood sought review of the Court of Appeals' ruling on the punitive damages award The Supreme Court reversed on 11th January 1984, holding that the federal preemption of state regulation of nuclear safety under the Atomic Energy Act does not extend to the state authorised award of punitive damages for conduct related to radiation hazards[5]

Federal preemption is based on the Supremacy clause of the US Constitution, which provides that the laws of the United States are the supreme law of the land As summarised in the Supreme Court's opinion, state law can be

5 Silkwood v Kerr-McGee Corp., 464 US 238 (1984)

preempted in one of two general ways If Congress evidences an intent to occupy a given field entirely, any state law falling within that field is preempted If Congress has not completely displaced state regulation of a particular matter, state law is nevertheless preempted if it actually conflicts with federal law Such a conflict is present, for example, when it is impossible to comply with both state and federal law, or where the state law presents an obstacle to accomplishment of the full purposes and objectives of Congress.

Kerr-McGee argued that the punitive damages award was preempted under either analysis. The Supreme Court disagreed The Court noted that in Pacific Gas & Electric[6] it concluded that the federal government had occupied the entire field of nuclear safety, except for the limited powers expressly given to the states. Without more, this arguably would preclude state law remedies for injuries from radiation exposure The Court reviewed the legislative history of the Price-Anderson Act[7], however, and found considerable evidence that Congress had assumed that state law remedies would continue to be available to persons injured by nuclear incidents Thus, the Court concluded that, with regard to damages for radiation injury, preemption should be judged not on the basis of federal occupation of the field but on whether there is a conflict between federal and state law.

Turning to that issue, the Court found no conflict The Court observed that paying both federal fines and state imposed punitive damages did not appear to be physically impossible. The Court also found that the award of punitive damages under state law did not frustrate the federal purpose of promoting nuclear power, because such promotion was not to be accomplished "at all costs", without regard to the provision of adequate remedies for persons who are injured by exposure to radioactive materials Nor did the award of punitive damages conflict with the intent of Congress to preclude dual regulation of radiation hazards because, as discussed above, there was ample evidence in the legislative history that Congress had assumed that state tort law would apply unless expressly displaced

For these reasons, the Supreme Court reversed the Court of Appeals' judgment with respect to punitive damages and remanded the case for further consideration The Court noted that on remand, Kerr-McGee would be free to assert any claims it had made before the Court of Appeals that were not addressed by that court or in the Supreme Court's opinion, including the company's arguments that the award was excessive and was not supported by sufficient evidence

Four Justices dissented in two dissenting opinions Among other things, they pointed out in those opinions that the Court's decision would allow juries to determine whether federally licensed nuclear facilities were

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6 Pacific Gas & Electric Co v State Energy Resources Conservation and Development Commission, 461 US 190 (1983).

7 Provisions in the Atomic Energy Act which deal with nuclear third party liability (note by the Secretariat)

operated safely and to impose financial penalties regardless of whether the NRC had found a violation of federal regulations sufficient to warrant enforcement action The purpose of punitive damages is to deter and punish violations (that is, to regulate safety), whereas the purpose of compensatory damages is to compensate victims. Thus, they argued, the Court could have held that the award of punitive damages was preempted as falling within the sphere of exclusive federal regulation while still finding that Congress intended to leave the matter of compensation for determination under state law They also noted that in a nuclear incident, the Federal Government might be required to pay punitive damages to the victims of an accident under the indemnification provision This would mean that the award of punitive damages would not have the intended deterrent effect

The Decision on Remand

The Court of Appeals again considered the case on remand from the Supreme Court. Kerr-McGee argued that it was entitled to judgment on the punitive damage claim for two reasons because there was no evidence of malicious or wanton conduct on the part of Kerr-McGee, and because the company substantially complied with federal regulations In the alternative, Kerr-McGee argued on various grounds that the case should be remanded for a new trial Among other things, Kerr-McGee maintained that the evidence and jury instructions relating to Silkwood's personal injury claim prejudicially tainted the trial because any award of punitive damages was required to be based solely on the evidence supporting the property damage claim

On 31st July 1985, the Court of Appeals rejected Kerr-McGee's arguments that it was entitled to a judgment notwithstanding the verdict[8] The court held that there was sufficient evidence of malice for the trial court to have permitted the jury to decide the issue The court also rejected Kerr-McGee's argument concerning substantial compliance with the regulations, concluding that the Supreme Court had already decided that point The court nevertheless determined that a new trial was required, because the trial court erred in its instructions to the jury on the punitive damages claim The court had instructed the jury to consider "the injuries inflicted" without restricting that consideration to Silkwood's property damage claim

The court rejected Kerr-McGee's argument that the Oklahoma workers' compensation act completely barred the admission of evidence relating to a covered personal injury claim Such evidence could be used, for example, to prove an element of a claim not covered by the act The court agreed, however, that evidence of a covered injury could not be the basis for damages of any kind, because of the provision that the act was exclusive of all other liability of the employer By not limiting the jury's consideration of evidence of Silkwood's personal injuries, the trial court had invited the jury to increase the punitive damages award in a manner inconsistent with Oklahoma law The court therefore reversed the punitive damages award and remanded the case for a new trial on that issue

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8 Silkwood v Kerr-McGee Corp , 769 Federal Reporter 2d 1451 (US Court of Appeals for the Tenth Circuit 1985)

Conclusion

Nearly twelve years and six court opinions after the events that formed the basis for the original lawsuit, the Silkwood litigation has not yet come to a close On 13th December 1985, Kerr-McGee filed a petition for certiorari with the US Supreme Court, seeking a ruling on a question of evidence which it believed would be dispositive of the case. Although the Supreme Court denied the petition on 5th May 1986, the new trial that the Court of Appeals ordered has not yet commenced[9] Thus, for the litigants, the ultimate outcome remains uncertain Regardless of that outcome, however, the Supreme Court's opinion is an important element in the analysis of federal preemption under the Atomic Energy Act And, unless altered by legislation, it will continue to dictate the relationship between the Price-Anderson provisions of that Act and the remedies available under state tort law

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9 Silkwood v. Kerr-McGee Corp., 54 USLW 3729 (US, 5th May 1986)

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• *Argentina*

Madurez del derecho nuclear (Notas introductorias) by Jorge Martinez Favini, Revista Juridica de Buenos Aires, 1985, pages 187 to 227

In this article, the author who is the Director of the Legal Department of the National Atomic Energy Commission, gives a "synthetic description" of nuclear law as a whole, while focusing in particular on nuclear third party liability questions

The ever increasing use of atomic energy since the 50's has generated a set of rules which has been called, for practical reasons, Nuclear Law. This branch of law at present covers a very wide spectrum of activities linked to nuclear energy and the specialised studies seem to have foreseen all conceivable hypotheses

The international character of Nuclear Law explains the basic harmonisation of domestic legislation Comparative law and international private law methods as well as the joint in-depth work of scientists and jurists will bring about steady progress towards legislative unity and a prompt solution to conflicts

It is expected that nuclear power generation programmes will be revitalised early in the XXIst century and that this will create a "Nuclear Legal Community" which can already be perceived through the maturity attained by nuclear law

• *Federal Republic of Germany*

Series of books concerning the administrative and constitutional aspects of nuclear energy legislation

Jürgen Held Der Grundrechtsbezug des Verwaltungsverfahrens. Berlin. Duncker & Humblot 1984, 277 pages (Schriften zum öffentlichen Recht, 462). Erwin Rumpel: Nebenbestimmungen zu atomrechtlichen Teilentscheidungen unter besonderer Berücksichtigung der inhaltlichen Beschränkungen nach 17 Abs. 1 S 2 des Atomgesetzes Thesis Würzburg 1984, XVI, 191 pages Michael Ch. Jacobs Der Grundsatz der Verhältnismässigkeit. Mit einer exemplarischen Darstellung seiner Gultung im Atomrecht. Köln etc Heymanns Verlag 1985, XII, 243 pages (Osnabrücker Rechtswissenschaftliche Abhandlungen, 3) Klaus

Löffler· Parlamentsvorbehalt im Kernenergierecht Eine Untersuchung zur parlamentarischen Verantwortung für neue Technologien Baden-Baden Nomos Verlagsgesellschaft 1985, 158 pages Dietrich Murswiek Die staatliche Verantwortung für die Risiken der Technik Berlin· Duncker & Humblot 1985, 428 pages Hans-Werner Rengeling· Der Stand der Technik bei der Genehmigung umweltgefährdender Anlagen Köln etc. Heymanns Verlag 1985, XVII, 249 pages (Osnabrücker Rechtswissenschaftliche Abhandlungen, 2) Dieter Deiseroth Grosskraftwerke vor Gericht Frankfurt a M etc· Peter Lang 1986, IX, 723 pages Johannes Schuy Vorläufiger Rechtsschutz im atomrechtlichen Genehmigungsverfahren Baden-Baden Nomos Verlagsgesellschaft 1986, 104 pages (Veröffentlichungen des Instituts für Energierecht an der Universität zu Köln, 54).

The books deal with various aspects of German administrative and constitutional law with regard to the peaceful uses of nuclear energy - Held investigates administrative procedure regulations as a means of securing constitutional rights Rumpel describes the prerequisites to be complied with when imposing conditions upon nuclear licences Jacobs focusses on the fundamental constitutional principle that there must be a reasonable proportion between end and means ("Grundsatz der Verhaltnismässigkeit"), which is of special significance in the field of assuring nuclear safety by administrative decisions The treatises by Löffler and by Murswiek aim at clarifying the special obligations and responsibilities of the State concerning new technologies and their risks. Löffler gives emphasis to the question of the extent to which decisions concerning nuclear energy are left to the exclusive decision of Parliament ("Parlamentsvorbehalt") The current status of technology is the generally accepted reference for prescribing safety conditions Rengeling's book provides a comprehensive survey on the legal problems in connection with the assessment of the status of technology Finally, Deiseroth and Schuy deal with questions of administrative court procedures While Deiseroth presents a richly documented general compilation of court procedures in connection with large power stations, Schuy concentrates on the problems of preliminary legal protection at administrative courts.

• *Italy*

Rassegna giuridica dell'energia elettrica II, No 4, October-December 1985, Giuffrè Editore, Milan, 274 pages

Other issues of this periodical have been reviewed in the Nuclear Law Bulletin when they contain communications dealing with nuclear law (see Nuclear Law Bulletin No 36). The above issue reproduces two papers presented to the Seventh Congress of the International Nuclear Law Association, held in Constance, Federal Republic of Germany in 1985 (see under INLA below)

The papers deal respectively with the possibility of co-ordinating the different systems presently regulating nuclear liability and licensing and decommissioning of nuclear plants in Italy

• *Yugoslavia*

Nuklearno odskodninsko pravo, by Professor Stojan Cigoj, Ljubljana· Academia Scientiarum and Artium Slovenica, Ljubljana 1985, 311 pages

The English translation of this university publication recently issued in Yugoslavia is "Nuclear Liability Law". The publication is a fairly exhaustive study of that aspect of nuclear law The author, Dr Stojan Cigoj, Professor of Civil Law at the University of Ljubljana, begins by providing an account, written for the layman, of the scientific, technical and economic fundamentals of nuclear energy as well as radiation protection and nuclear safety principles

The legal analysis proper starts with research on the origins of nuclear law, both Yugoslav and international before approaching the central topic, namely third party liability for nuclear damage Study of Yugoslav legislation in this field is carried out in a comparative perspective with other sources of law, international and national All the problematics of nuclear liability law are thus thoroughly reviewed

This publication, which is supplemented by a Summary in English, contributes most usefully to knowledge of nuclear legislation in Yugoslavia It is recalled that Yugoslavia ratified the Vienna Convention on Civil Liability for Nuclear Damage when its first nuclear power plant came into operation

• *NEA*

Les entreprises de coopération technique internationale - Aspects juridiques, bilan, perspectives - OECD/NEA and ESA, Paris, 1985, 155 pages

This publication contains the Proceedings of a panel meeting held at OECD Headquarters on 27th April 1985 The International Energy Agency (IEA) and the European Space Agency (ESA) also participated in this one-day meeting, organised by the OECD Nuclear Energy Agency with the sponsorship of the Société Française pour le Droit International (SFDI).

As noted by Professor Brigitte Stern (Revue française d'administration publique, No 35, July - September 1985, p 527) the purpose of the meeting was to study the legal problems raised by undertakings with a scientific, technical and industrial vocation, essentially in peak technologies and set up on the initiative, with the agreement of and/or participation by several States accordingly, the meeting brought together international specialists and practitioners with present or past responsibilities in the type of undertakings under review Therefore, the object pursued was twofold theory - to enrich the concept of international economics in law - and practice - to learn

the lessons of current experience which could be used for future joint actions several Governments might launch in the field of technical co-operation - with both perspectives interconnecting to their mutual benefit

This meeting gave rise to a fruitful dialogue between experts in these special international co-operation techniques. The Proceedings contain a series of brief monographs on the undertakings selected by the panel organisers as being particularly representative. The monographs were presented at the morning session by Madame Simone Bastid, President of SFDI

Also included is the report of the discussions of the afternoon session, chaired by Mr. Pierre Huet, Conseiller d'Etat The discussions focussed on analysis of the different questions raised by the status and operating system of these undertakings, a synthetic report on the discussions prepared by Dean Claude Albert Colliard is also reproduced in the Proceedings

• *INLA*

International harmonisation in the field of nuclear energy law, Proceedings of Nuclear Inter Jura '85, Norbert Pelzer, Ed , Nomos Verlagsgesellschaft, Baden-Baden, 1986, 643 pages

The final Proceedings of the Seventh Congress of the International Nuclear Law Association which was held in Constance, Federal Republic of Germany from 29th September to 2nd October 1985 (see Nuclear Law Bulletin No 36) have just been published.

These Proceedings contain the different contributions of the various working groups as well as the summary of discussions which took place after each working session

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NUCLEAR LAW
Bulletin

SUPPLEMENT TO NO. 37

BELGIUM

ACT OF 22ND JULY 1985 ON THIRD PARTY LIABILITY IN THE FIELD OF NUCLEAR ENERGY

June 1986

Belgium

ACT OF 22ND JULY 1985 ON THIRD PARTY LIABILITY IN THE FIELD OF NUCLEAR ENERGY*

(of 31st August 1985)

Part I : APPLICATION OF THE PARIS CONVENTION AND THE BRUSSELS SUPPLEMENTARY CONVENTION ON THIRD PARTY LIABILITY IN THE FIELD OF NUCLEAR ENERGY

CHAPTER I

General provisions

Section 1

For the purposes of this Act:

a) the "Paris Convention" shall denote the Convention on Third Party Liability in the Field of Nuclear Energy, signed in Paris on 29th July 1960, and the Additional Protocol thereto signed in Paris on 28th January 1964, which were approved by the Act of 1st August 1966, as well as the Protocol to amend that Convention, signed in Paris on 16th November 1982;

b) the "Supplementary Convention" shall denote the Supplementary Convention to the Paris Convention, signed in Brussels on 31st January 1963, and the Additional Protocol thereto signed in Paris on 28th January 1964, which were approved by the Act of 1st August 1966, as well as the Protocol to amend that Convention, signed in Paris on 16th November 1982;

c) the "Minister" shall denote the Minister whose responsibilities include nuclear insurance matters;

d) "nuclear incident", "nuclear installation", "nuclear fuel", "radioactive products or waste" and "nuclear substances" shall have the meanings set out in Article 1 of the Paris Convention.

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* Unofficial translation by the Secretariat.

e) "nuclear installation" shall have the meaning set out in Article 1 of the Paris Convention, including any installation for the disposal of nuclear substances for the pre-closure phase, it being understood that each unit shall constitute one nuclear installation within the meaning of this Act.

Section 2

1. The provisions of Part I shall apply to damage resulting from a nuclear incident for which the operator of a nuclear installation located in Belgian territory is liable, provided the incident occurs in the territory of a Contracting State or a non-contracting State or on or over the high seas, and that the damage has been suffered in the territory of a Contracting State or on or over the high seas on board a ship or aircraft registered in the territory of a Contracting State, or on or over the high seas by a national of a Contracting State in accordance with Article 2(a)(ii)(3) of Supplementary Convention.

2. By Order made in the Council of Ministers the King may direct that Part I of this Act shall apply to damage resulting from a nuclear incident within the meaning of subsection 1 and suffered by the national of a Contracting State in the territory of a non-Contracting State.

3. For the purposes of this Section, territorial waters shall be deemed to form part of the national territory.

CHAPTER II

The nuclear installation and the operator

Section 3

For the purposes of this Act an operator shall be any person who has in his possession or uses, in a nuclear installation, nuclear fuel, radioactive products or waste, or who takes charge of nuclear substances intended for his installation.

The operator shall remain liable until final closure of the nuclear installation.

By Order made in the Council of Ministers the King may, taking into account criteria he has determined, set the date by which each nuclear installation may be deemed to be closed.

Section 4

For the purposes of this Act, the King may treat as a single nuclear installation:

i) two or more nuclear installations run by one operator and located on the same site, together with any other premises on that site where radioactive material is stored; however, in such a case, the sum of the insurance to be taken out by the operator shall be the sum of the amounts for each installation taken separately;

ii) one or more non-nuclear installations which are operated jointly for a common purpose with a nuclear installation located on the same site.

He may, in such cases, fix special conditions to be met by the operator, in particular with respect to insurance or other financial security.

CHAPTER III

Third party liability

Section 5

The operator of a nuclear installation shall be liable for damage caused by a nuclear incident in accordance with the provisions of the Paris Convention, of the Supplementary Convention and of this Act.

He shall be liable for damage caused by a nuclear incident, even if such incident is directly due to a grave natural disaster of an exceptional nature.

He shall not be liable for damage caused by a nuclear incident if such incident is directly due to an act of armed conflict, hostilities, civil war or insurrection.

Section 6

The operator of a nuclear installation:

i) shall not be liable for damage to the nuclear installation itself or to any other nuclear installation located on the site, including those under construction, or for damage to any property on the site which is being or is to be used in connection with any such installation;

ii) shall be liable for damage to the means of transport upon which the nuclear substances were at the time of the nuclear incident, if he is liable for damage caused during transport in the cases provided for in Article 4 of the Paris Convention.

The payment of compensation for such damage shall not reduce the liability of the operator for other damage so as to bring it below the amount prescribed in Section 7(1) of this Act.

Section 7

The maximum liability of the operator for damage caused by a single nuclear incident shall be B. Frs. 4,000 million.

By order made in the Council of Ministers, the King may increase or reduce this figure, so as to keep its value constant, or having regard to the capacity and nature of the nuclear installation, the amounts of materials being transported or any other circumstance which may affect its value, provided it does not fall below the minimum amount specified in Article 7(b) of the Paris Convention.

CHAPTER IV

Cover for third party liability and recognition of the operator

Section 8

The operator of a nuclear installation shall be required, in accordance with Article 10(a) and (b) of the Paris Convention, to take out and maintain insurance or other financial security deemed appropriate by the Minister to cover his liability up to the amount fixed by or pursuant to Section 7 of this Act. He shall be required to renew such insurance or other financial security within sixty days following an incident.

The Minister is the public authority competent to receive the notice in writing prescribed by Article 10(b) of the Paris Convention.

The sums provided as insurance, reinsurance or other financial security may be drawn upon only for compensation for damage caused by a nuclear incident.

Section 9

Without prejudice to the application of the law and regulations relating to protection of the public and workers against the hazards of ionizing radiation, no operator of a nuclear installation may keep or use any nuclear fuel, radioactive products or waste or take charge of nuclear substances intended for such nuclear installation unless he has been recognised beforehand as an operator in accordance with this Act and the rules laid down by the King.

Section 10

The operator shall be recognised as such by the King, upon supplying proof that, for the purpose of covering his liability, he has taken out insurance or financial security in accordance with Section 8.

The decree granting recognition may do so for a limited period.

Recognition may be withdrawn if the operator ceases to fulfil the conditions laid down in Section 8 or if he ceases his activities.

Any decree refusing or withdrawing recognition shall state the grounds therefor.

Any decree granting, refusing or withdrawing recognition shall be communicated to the operator by the Minister or his representative. An extract shall be published in the Belgian Official Gazette within three months of notification.

In the event of recognition being withdrawn, the operator shall remain bound by the requirements of Section 8 so long as his liability continues.

Section 11

The Minister may at any time request the operator to provide evidence that he is complying with the requirements of Section 8.

Section 12

The State shall be liable in accordance with this Act for the nuclear installations operated by it.

The obligation to take out insurance under Section 8 shall not apply to the State as operator.

Decisions by the State to operate nuclear installations shall be mentioned in the Belgian Official Gazette.

Section 13

The Minister shall establish a register setting out the recognitions granted pursuant to Section 10. The register shall comprise in particular a map showing the location and boundaries of the site of each nuclear installation and, where appropriate, the boundaries of sites where several nuclear installations are located.

Every operator shall be required to inform the Minister of any modifications affecting the installations or their sites.

Third parties shall not be deemed to have notice of the boundaries of a nuclear installation unless such boundaries appear in the aforementioned register. This register shall be made available to the public in a locality designated by the Minister and in the administration of the communes on whose territory such installations are located.

The list of recognised operators shall be published each year in the Belgian Official Gazette.

This Section shall also apply to any nuclear installation operated by the State.

CHAPTER V

Transport of nuclear substances

Section 14

Without prejudice to the application of the law and regulations concerning protection of the public and workers against the hazards of ionizing radiation:

i) the operator of a nuclear installation shall be liable, in accordance with Article 4 of the Paris Convention, for the transport of nuclear substances including storage during transport;

ii) subject to the agreement of the operator and the Minister, the operator may be replaced by the carrier for purposes of liability for damage caused by a nuclear incident occurring outside the installation provided the conditions in Section 8 are fulfilled.

In this case, the carrier shall, for nuclear incidents occurring during the transport of nuclear substances, be regarded as the operator of a nuclear installation located within Belgian territory.

Section 15

Any carrier of nuclear substances must be in possession of a certificate issued by or on behalf of the insurer or other financial guarantor stating that he satisfies the requirements of Section 8. The certificate must comply with Article 4(c) of the Paris Convention.

The King shall prescribe the arrangements for implementing this Section.

Section 16

In accordance with Article 7(e) of the Paris Convention and without prejudice to the application of Article 7(f) thereof, the transit of nuclear substances through Belgian territory shall be subject to the foreign operator assuming the same obligations as the operator of a nuclear installation located in Belgian territory.

CHAPTER VI

Compensation for damage

Section 17

In accordance with Article 7(a) of the Paris Convention, total compensation payable by the operator for damage caused by a nuclear incident shall not exceed the maximum amount fixed by or pursuant to Section 7 of this Act.

Section 18

If damage gives rise to liability of more than one operator in accordance with this Act, the liability of these operators shall be joint and several.

Where such liability arises as a result of damage caused by a nuclear incident involving nuclear substances in the course of carriage in one and the same means of transport, or, in the case of storage incidental to the carriage, in one and the same nuclear installation, the maximum amount for which such operators shall be liable shall be the highest amount established with respect to any of them pursuant to Section 7 of this Act.

In no case shall any one operator be required, in respect of a nuclear incident, to pay more than the amount established with respect to him pursuant to Section 7 of this Act or to this Section.

Section 19

Where the Supplementary Convention applies, if the damage caused by a nuclear incident exceeds the amount fixed in accordance with Section 7, compensation in excess of that amount shall be paid out of public funds allocated for a purpose other than that of covering the operator's liability in accordance with Article 3(b)(ii) and (iii) and (3)(f) of the Supplementary Convention.

Where Section 18 of this Act applies, and in accordance with Article 4(b) of the Supplementary Convention, the total amount of the public funds made available pursuant to subsection 1 shall not exceed the difference between the highest amount established by Article 3(b)(iii) of the Supplementary Convention and the sum of the amounts established with respect to the operators liable.

The amounts may be converted into national currency by Royal Decree.

Section 20

Where total compensation does not exceed the funds available for this purpose under or pursuant to the Paris Convention, the Supplementary Convention and Sections 17 and 19 of this Act, compensation shall be awarded in accordance with the ordinary law.

Where total compensation exceeds or is likely to exceed the funds referred to in the previous subsection, the King shall determine criteria for the fair apportionment of the compensation.

Section 21

Beneficiaries under schemes for sickness and disability insurance or for compensation for industrial accidents and occupational diseases shall remain subject to the legislation governing such schemes even in the event of a nuclear incident.

Insofar as compensation for damage caused by a nuclear incident is not paid under Schemes mentioned in the previous subsection, and provided such beneficiaries are entitled to institute proceedings under the ordinary law against the person liable, they may claim compensation for damage in accordance with this Act.

The persons or organisations which, under the Schemes referred to in subsection 1 of this Section, have paid out benefits to the victims of a nuclear incident or to claimants to the victims' rights, shall, subject to the limits referred to in Sections 17 and 19, be entitled to exercise their rights of action under such schemes against the operator, his insurer, any other financial guarantor or the State.

Section 22

Without prejudice to the provisions of Section 19, the State shall pay compensation for damage not covered by insurance or financial security up to a maximum amount of the operator's liability.

In this case, the State shall, up to the amount it has paid, acquire by subrogation all the rights and actions of the victims.

Section 23

1. Action for compensation against the operator under this Act must, on pain of forfeiture, be brought within ten years from the date of the incident.

In the case of damage caused by a nuclear incident involving nuclear fuel or radioactive products or waste which, at the time of the incident, were stolen, lost, jettisoned or abandoned and had not been recovered, rights of action for compensation not exercised within ten years after the incident shall also be forfeited. However, no action may be brought more than twenty years after the date on which the nuclear fuel or radioactive products or waste were stolen, lost, jettisoned or abandoned.

2. If a nuclear incident has caused damage in Belgium for which the operator is liable in accordance with Section 5 of this Act and if such damage was noted only after the rights of compensation which may be exercised against the operator have been extinguished pursuant to subsection 1 of this Section, but within the period of thirty years running from the date of the nuclear incident, the State shall pay compensation for the damage.

3. The right to claim compensation shall in any event be forfeited three years after the time when the injured party becomes aware of the damage and the identity of the operator concerned, or from the time he ought reasonably to have become aware of these facts, provided that the ten, twenty or thirty-year periods laid down by this Section shall in no case be exceeded.

4. Any person having suffered damage caused by a nuclear incident who has brought an action for compensation within the period of time prescribed by this Section may amend his claim provided no judgment has been entered definitely establishing the amount of compensation.

Section 24

When the nuclear incident or the damage is wilfully caused by the victim, he is not entitled to compensation.

CHAPTER VII

Rights of recourse

Section 25

1. The insurer or person providing financial security shall be entitled by subrogation to exercise the right of recourse of the operator under Article 6(f) of the Paris Convention. The Belgian State shall be entitled by subrogation to exercise the same right insofar as, pursuant to Section 22, it has paid compensation for the damage in place of the operator.

2. Where payments have been made pursuant to Section 19 from public funds allocated by the Belgian State and other Contracting States shall, in accordance with Article 5(a) of the Supplementary Convention, be entitled by subrogation to a right of recourse in their own behalf against persons against whom such proceedings may be brought, pursuant to Article 6(f) of the Paris Convention.

The Belgian State shall be entitled to exercise rights of recourse on behalf of other Contracting States having allocated public funds as in its own behalf.

3. If pursuant to Section 19 of this Act payments have been made from public funds allocated by the Belgian State or by other Contracting Parties, then, having regard to Article 10(c) of the Supplementary Convention, the Belgian State and other Contracting States, within the limits of such funds, shall, pursuant to Article 5(b) of the Supplementary Convention, have a right of recourse against the operator for the recovery of the public funds allocated, provided the damge for which the payments have been made was caused by a nuclear incident attributable to the gross negligence of the operator.

The cases of gross negligence which may give rise to an action against the operator shall be determined by the King, having regard to legal or regulatory prescriptions in connection with the safety of nuclear installations and technical operating conditions.

CHAPTER VIII

Rules of procedure for actions based on the Paris Convention and the Supplementary Convention

Section 26

Legal proceedings based on the Paris Convention, the Supplementary Convention and this Act shall, at first instance, be brought before the Brussels Court of First Instance, sitting as a civil court.

Section 27

The victim of damage resulting from a nuclear incident shall have a direct right of action against the insurer or other financial guarantor, and in the case referred to in Section 22, against the State.

Section 28

1. The State may intervene in any proceedings based on the provisions of the Paris Convention, the Supplementary Convention and this Act.

If the State has not intervened, the claimant must summon it to take part before the close of the hearing.

2. A judgment delivered in a case arising from damage caused by a nuclear incident cannot be appealed against by the operator, the victim or claimants to the victim's rights, the insurer or other financial guarantor unless they have appeared before the court or have been summoned to do so.

Nevertheless, a judgment delivered in a case between a victim and the operator shall be enforceable against the insurer or other financial guarantor if it is established that the insurer or guarantor was in fact in control of the proceedings.

The insurer or other financial guarantor shall be entitled to enjoin the operator in any proceedings brought against them by the victim.

Section 29

The King shall supervise the payment of compensation by the insurers or other financial guarantors. He shall also determine the conditions under which those entitled to compensation pursuant to the Paris Convention, the Supplementary Convention or this Act may obtain information concerning insurance policies or contracts for financial security.

Section 30

For the purposes of paying compensation under Section 19 or 22, the King may set up an administrative or legal conciliation procedure which, in any case, must precede any hearing before the court.

PART 2 : ADDITIONAL MEASURES

Section 31

In the event of transit of nuclear substances through Belgium, including storage, the carrier shall be held liable for any damage suffered on Belgian territory as a result of any nuclear incident involving such substances, and in relation to which the Paris Convention makes no arrangements for compensation.

The King may make appropriate rules to make the provisions of Part I partly or wholly applicable to the carrier mentioned in the preceding subsection.

Section 32

Where sources of ionizing radiation not covered by the Paris Convention are kept or used in an installation designated as a nuclear installation by the King, the operator shall be liable for damage caused in Belgium as a result of the radioactive properties alone or in combination with other toxic or harmful properties of the ionizing radiation sources.

The King may make appropriate rules to make the provisions of Part I partly or wholly applicable to the operator referred to in the preceding subsection.

Section 33

For damage suffered in Belgium, the King shall determine the manner whereby the State shall bear that portion of the compensation which exceeds the maximum amount fixed by Section 7, where Section 31 or Section 32 of this Act is applied, or where the provisions for compensation in the Supplementary Convention do not apply even though liability has been established in accordance with Part I and the Paris Convention.

Section 34

The King may, according to rules he has determined, decide to take charge of compensation of damage suffered on Belgian territory caused by a nuclear incident for which the operator of a nuclear installation located in the territory of a non-contracting State is liable, when the victim cannot obtain in that State compensation for the damage suffered.

PART 3 : PENAL AND FINAL PROVISIONS AND REPEALS

Section 35

Breaches of Sections 8, 9, 13(2) and 15 and of the decrees implementing Sections 31 and 32 shall be punishable by imprisonment for a period of three

months to five years and by a fine of B.Frs. 1,000 to B.Frs. 50,000 or by one of these penalties.

The provisions of Book I of the Penal Code, including Chapter VII and Section 85, shall apply to such offences.

Without prejudice to the powers of officers of the criminal investigation department and on the proposal of the Ministers responsible either for insurance, protection of the public and workers agaist the hazards of ionizing radiation or for nuclear safety, the King shall designate the officials and agents of the State entitled to investigate and, by means of the official record deemed correct in the absence of contrary evidence, report the offences referred to in the first subsection of this Section.

Section 36

The Act of 18th July 1966 on third party liability in the field of nuclear energy, containing certain provisions for the immediate application of the Paris Convention and its Additional Protocol, is hereby repealed.

Section 37

Operators who have been recognised as such under the Act of 18th July 1966 shall continue to benefit from such recognition provided they adjust the insurance or other financial guarantee covering their liability to the provisions of this Act within sixty days of its entry into force.